

The College

The Metropolitan State College of Denver confers more baccalaureate degrees than any other public baccalaureate institution in the nation. 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 50 majors and 79 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.

Current enrollment is 19,390. Students range in age from 15 to 76 with a median age of 23. Ethnic minorities make up 23 percent of the students.

About 58 percent of students are enrolled full-time and 89 percent work full- or part-time. Seventeen percent are traditional students, beginning college before age 20, while 83 percent represent nontraditional age groups. Ninety-three percent of students reside in the seven counties of the Denver metropolitan area:

2003-2004 College Catalog

Adams 13%	Denver 28%
Arapahoe 21%	Douglas 6%
Boulder 3%	Jefferson 19%
Broomfield 3%	

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, 41 percent of full-time faculty are women and 19 percent represent ethnic minorities.

The MSCD faculty is among the most productive in the state. Latest QIS (2001-2002) shows average weekly teaching hours per full-time faculty FTE is 12.6 compared to 8.6 for CSU and 6.4 for UCB.

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 693,000 volumes, and one of the most unusual student union facilities in the country in the historic Bavarian-style Tivoli Brewery Building. Excellent physical fitness facilities include a block-long physical education/events center with a swimming pool, 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.

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.

Distance Education Options

MSCD offers several options for distance education: online courses, hybrid courses (online/classroom combination), telecourses, and correspondence courses.

2003-2004 College Catalog

Online education is the fastest growing distance education option at MSCD with over 3500 students registering for one or more online classes during the Spring 2003 semester. MSCD's online courses tend to be small and highly interactive for both instructors and students. A student can complete General Studies online. For information about completing a major, minor, or certificate online, please contact the appropriate academic department. Please check with academic advisors and visit the MSCD web site for more specific information about the online learning environment, suggested computer equipment, and other online services that are offered by the College (www.mscd.edu).

2003-2004 ACADEMIC CALENDAR

[Click here to view the current Academic Calendar](#)

DEGREES AND PROGRAMS

The Metropolitan State College of Denver is organized into three schools. The schools are 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
School of Business			
Accounting *	X	x	B.S.
Computer Information Systems *	X	x	BS
Economics	X	x	B.A.
Finance *	X	x	BS
Financial Services		x	
General Business		x	
International Business		x	
Management *	X	x	BS
Marketing *	X	x	BS
School of Letters, Arts and Sciences			
African American Studies	X	x	BA
Anthropology	X	x	BA
Art *	X	x	B.F.A./BA
Art History and Art Theory Criticism		x	
Behavioral Science	X		BA
Biology	X	x	BA/BS
Chemistry	X	x	BA/BS
Chicano Studies	X	x	BA
Computer Science	X	x	BS
Criminalistics		x	
Digital Media		x	

2003-2004 College Catalog

English	X	x	BA
Environmental Science*	X		BS
Environmental Studies		x	
Family Support in Social Work		x	
French		x	
Geography		x	
Geology		x	
German		x	
Gerontology		x	
History	X	x	BA
Human Development	X		BA
Interdisciplinary Legal Studies		x	
Journalism	X	x	BA
Language and Linguistics		x	
Land Use*	X		BA/BS
Mathematics	X	x	BA/BS
Meteorology	X	x	BS
Modern Languages Option I (French, German, Spanish)	X		BA
Modern Foreign Languages Option II*	X		BA
Music	X	x	BA/B.M.
Music Education*	X		B.M.E.
Native American Studies		x	
Parent Education		x	
Philosophy	X	x	BA
Photojournalism		x	
Physics	X	x	BA/BS
Political Science	X	x	BA
Psychology	X	x	BA
Public Administration		x	
Public Relations		x	
Social Work*	X		BS
Sociology	X	x	BA
Spanish		x	
Speech Communications	X	x	BA
Speech, Language, Hearing Sciences		x	
Studio Art		x	

2003-2004 College Catalog

Theatre	X	x	BA/B.F.A.
Theoretical Physics		x	
Women's Studies (Institute for Women's Studies and Services)		x	
School of Professional Studies			
Airframe and Power Plant Mechanics		x	
Aviation Management	X	x	BS
Aviation Technology	X	x	BS
Bilingual/Bicultural Education		x	
Civil Engineering Technology⁺	X		BS
Criminal Justice and Criminology[*]	X	x	BS
Digital Media		x	
Early Childhood Education		x	
Electrical Engineering Technology⁺	X	x	BS
Elementary Education		x	
Gerontology		x	
Health and Safety		x	
Health Care Management (upper-division)	X	x	BS
Holistic Health & Wellness Education Multi-Disciplinary Minor		x	
Hospitality, Meeting and Travel Administration[*]	X		BA
Hotel Administration		x	
Human Performance and Sport	X	x	BA
Human Services[*]	X	x	BS
Industrial Design[*]	X		BS
Leisure Studies	X		BA
Leisure Services		x	
Mechanical Engineering Technology⁺	X	x	BS
Meeting Administration		x	
Network Communications		x	
Nursing (upper-division for RNs)[*]	X		BS
Nutrition		x	
Parent Education		x	
Private Pilot		x	
Reading Minor for Early Childhood Licensure Students		x	
Reading Minor for Elementary Licensure Students		x	
Restaurant Administration		x	

Secondary Education		x	
Special Education	X	x	BA
Surveying and Mapping	X	x	BS
Teacher Licensing: Early Childhood, Elementary and 12 Secondary Fields			
Technical Communications	X	x	BS
Travel Administration		x	
Other			
Individualized Degree Program	X	x	BA/BS

+Concentration may replace the minor.

Individualized Degree Program

The Individualized Degree Program (IDP) offers students the opportunity to design a major or a minor to meet their specific educational goals when those goals cannot be met by other majors and minors currently offered by the College. 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 51 of this *Catalog* and our website www.mscd.edu/~cil/ 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, 1-800-621-7440). Individual academic programs within the following areas are accredited or approved by the following agencies:

Program	Accreditation/Approval Agency
Accounting**	Colorado State Board of Accountancy
Center for Addition Studies**	Colorado Department of Health
Chemistry**	American Chemical Society
Civil Engineering Technology*	Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, Inc.
Electrical Engineering Technology*	111 Market Place, Suite 1050;
Mechanical Engineering Technology*	Baltimore, MD 21202-4012 Phone: 410-347-7700 Fax: 410-625-2238 Web site: www.abet.org
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 www.AUPHA.org ; email: AUPHA@AUPHA.org

Human Performance, Sport and Leisure Studies*	National Recreation and 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-33rd Floor 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

*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.

Students must complete each course in the certificate program with a grade of “C” or better. The courses cannot be taken pass/fail.

Certificate Programs Available:

School of Business	Page
Database Analyst	91
End User Support Specialist	91
Network Specialist in Information Systems	91
Noncredit Financial Planning	94
Noncredit International Trade	95
Personal Financial Planning	94
Programmer/Analyst in Information Systems	91
Web Developer in Information Systems	92
School of Letters, Arts and Sciences	
Advanced Software Engineering Techniques	124
Basic Competency in French	162
Basic Competency in German	162
Basic Competency in Spanish	162
Career and Personal Development	195
Family Support in Social Work (seven concentrations available)	182

Geographic Information Systems (GIS)	151
Geotechnology Systems (GTS)	151
German Translation	162
Gerontology (Liberal Arts Orientation)	137
Public Administration	174
School of Professional Studies	
Activities Assistant for Older Adults	232
Aquatics Assistant	233
Coaching	232
Conditioning Specialist	233
Corporate Video Production	274
Electrical Engineering Technology	215
Engineering Fundamentals	215
Extended Day Activities Aide	233
Gerontology (Professional Services Orientation)	217
High Risk Youth	237
International Technical Writing	274
Multimedia Production	274
Network Communications	215
Nonprofit Organization Administration	239
Officiating	233
Reading Certificate for Post BA Early Childhood Students	250
Reading Certificate for Post BA Elementary Students	250
Reading Certificate for Secondary Licensure Students or Post BA Secondary Students	250
Recreation Assistant	233
Technical Writing and Editing	275

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. Please refer to the Academic Policies and Procedures section in this *Catalog*.

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. Please refer to the Academic Policies and Procedures section in this *Catalog*.

- Complete a minimum of 120 semester hours with a cumulative GPA of 2.0 or higher for all course work.
- 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.
- 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 following deadlines: Fall 2003–August 29, 2003; Spring 2004–January 30, 2004; Summer 2004–June 11, 2004.
- 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 will **not** satisfy academic residence requirements at MSCD. To use an MSCD-UCD pooled course for the last 12 hours residency requirement a student must (1) complete a minimum of 30 hours credit at MSCD prior to graduation and (2) obtain permission from the major or minor department prior to taking a pooled course to use it to meet a requirement in the major or minor program.
 - Courses taken interinstitutionally at one of the other state colleges will **NOT** satisfy the 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 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.

Student Bill of Rights

The General Assembly implemented the Student Bill of Rights (C.R.S. 23-1-125) to assure that students enrolled in public institutions of higher education have the following rights:

1. Students should be able to complete their baccalaureate programs in no more than one hundred twenty credit hours unless there are additional degree requirements recognized by the commission;
2. A student can sign a four-year graduation agreement that formalizes a plan for that student to obtain a degree in four years, unless there are additional degree requirements recognized by the commission. Students interested in signing a four-year agreement must be admitted to MSCD by July 1, must work with the Advising Center during July, and register for 15 credits approved by the Advising Center by July 30. Students should go to the Advising Center for details.

3. Students have a right to clear and concise information concerning which courses must be completed successfully to complete their degrees;
4. Students have a right to know which courses are transferable among the state public two-year and four-year institutions of higher education;
5. Students, upon successful completion of core general education courses should have those courses satisfy the core course requirements of all Colorado public institutions of higher education;
6. Students have a right to know if courses from one or more public higher education institutions satisfy the students' degree requirements;
7. A student's credit for the completion of the core requirements and core courses shall not expire for ten years from the date of initial enrollment and shall be transferable.

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.
- Students must satisfy the Multicultural and Senior Experience course requirements for the second degree.
- Students must spend at least two additional semesters in residence.
- Students must complete a minimum of 30 semester hours of MSCD classroom credit after the awarding of the previous degree.
- Credit limitations for a bachelor's degree also apply to the second degree.
- An Application for Graduation must be submitted to the Office of the Registrar by the deadline stipulated on MSCD's website under Academic Calendar (<http://www.mscd.edu/academic/acal.htm>.)

Graduation Checklist

Students who anticipate completing all degree requirements within the next two semesters should review the following sections of this *Catalog*: Requirements for All Bachelor Degrees; Academic Policies and Procedures (pertaining to Curriculum, Advising and Program Planning [CAPP], Graduation, Diplomas and Commencement, and Honors and Awards).

After students have completed 90 earned credit hours at MSCD, including approved transfer credits, they should request a CAPP Compliance Report from their major department. After reviewing the CAPP report with their faculty advisor (major and minor), if any adjustments are needed, the department will submit an adjustment form to the Office of the Registrar. Once adjustments are made, an updated Compliance Report will be mailed to the student.

Application for Graduation: File an Application for Graduation with the Office of the Registrar (CN 105) by the following deadlines: for Fall 2003 graduation, file by August 29, 2003; for Spring 2004 graduation, file by January 30, 2004; and for Summer 2004 graduation, file by June 11, 2004. Students should file an Application for Graduation only if they will complete all degree requirements that semester.

After submitting an Application for Graduation, the student will be considered a candidate for graduation for that semester. The student will receive information about the final steps in the graduation process and the commencement ceremony. As candidates for graduation, students will receive another CAPP Compliance Report that will indicate any problems in their graduation status. Students should ensure that the correct address is on file with the Office of the Registrar.

There is a commencement ceremony at the end of the fall and spring semesters. Graduates are encouraged to attend one of the two ceremonies. The commencement program lists candidates, degree, and degree honors, if any. Although there is no commencement ceremony in the summer, students can still graduate. Summer candidates are asked to attend the fall commencement ceremony. Their names, degrees and honors, if any, will appear only in the fall commencement program. Check MSCD's website for complete, up-to-date information about commencement at www.mscd.edu/commencement/.

Diplomas are issued approximately three weeks after the semester ends. Students may pick up their diploma or make arrangements for it to be mailed. Information will be sent from the Office of the Registrar to graduating students about these arrangements.

Transcripts with the posted degree will also be available approximately three weeks after the semester ends. Students may request transcripts as early as the middle of their last semester and indicate that it is to be held until the degree is posted. All transcripts are free. Transcripts may be requested in person at the Office of the Registrar, CN 105, by fax at 303-556-3999, or via the web at www.mscd.edu/banner.htm.

Diplomas and transcripts will NOT be issued if money is owed to the College. If you owe any money to the College, please contact the Office of Student Accounts, CN 110, 303-556-6188, to arrange payment.

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.

State Guaranteed General Education Courses

Certain General Studies courses are approved as state guaranteed general education courses. This designation means that the course is transferable to general education or to electives at all Colorado public institutions and all undergraduate degree programs. There are restrictions to the number of courses that can be taken, and some majors require specific general education courses. For details go to page 54 of this Catalog or to <http://www.state.co.us/cche/gened/>.

General Studies Goals

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

MSCD students should be able to:

- Write and speak with clarity;
- Read and listen critically;
- Draw conclusions from quantitative data;
- Recognize faulty reasoning;
- Organize ideas; and

- Communicate with experts in other disciplines and learn from them.

MSCD students should:

- Have an open attitude toward different approaches to problems
- Have an informed awareness of the principle human achievements in history, arts and letters, society, and science, and
- 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.

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
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 listing of these courses begins on page 52 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 two times per year and is available from academic departments, the Academic Advising Center (CN 104) and Academic Affairs (CN 318).
- 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. Check with your departmental advisor.

ADMISSIONS

Admission Requirements

The College uses two categories for classifying applicants: those who are 19 years old and younger 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 no more than three consecutive semesters. Students who have not attended Metro for three consecutive semesters need to submit an application as re-admit students. 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. If applying for admission after the first week of classes, a Dean's approval from the appropriate school is required to accompany the admission application. However, for the best possible selection of courses, students are advised to apply early. First time college students are strongly encouraged to apply for admission at least one month prior to the first day of class to allow for processing time and enrollment steps to be completed. Refer to page 7 of this *Catalog* for important dates.

Applicants 19 Years Old or Younger

Applicants who are 19 years or younger 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 meet state requirements for the College as established by the Colorado Commission on Higher Education (CCHE). See chart on page 22.
- 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 statement.
- Applicants who have not graduated from high school but have passed and 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. Official GED certificates must be mailed directly to the Office of Admissions by the issuing agency before an applicant can be accepted.
- Applicants must request that the following information be mailed directly to the Office of Admissions from the high school or testing agency before an admissions decision can be made:
 - ACT or SAT test results;
 - official 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 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 between a 65 and 75 index will be considered on an individual basis. Students who have a 64 index or lower will be denied admission and will be encouraged to enroll in a community college.
- If your admissions file has not been completed at least one month before classes begin, and if your college GPA is below a 2.0, you cannot be considered for the upcoming term. Rather, you will be considered for admission for the next term. It is also strongly recommended that a personal statement be submitted along with the application for admission if you fall into this category.

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 statement.
- 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 passed and received a Colorado General Educational Development (GED) certificate or the equivalent. A GED issued through the military will be considered on an individual basis.
- 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 Colorado General Educational Development (GED) certificate or its equivalent.
- 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 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 can be submitted online at www.mscd.edu or 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.
- A \$25 nonrefundable application fee (\$40 for international applicants) is required with the application for admission. Readmit 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 a month 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 the semester for which the student was accepted. After that time the file will no longer be maintained for students who do not enroll. Applicants wishing to attend MSCD after this time period must begin the admission process again.

Admission of Previously Enrolled Students (Readmit Students)

Readmit students are defined as individuals who have previously enrolled and have received a grade or grade notation at the College.

Readmit students who have not been in attendance at MSCD for three or more semesters 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 readmission*
- ensure that the application and any required credentials are received at least a month prior to the first day of classes of the semester for which admission is sought.
- submit transcripts from institutions attended since last attending MSCD (if degree-seeking). If the student was not previously degree-seeking then the student must submit transcripts from all institutions attended.

Students who are returning after five 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 graduated from high school or received a GED 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 will be notified by mail as soon as decisions are made. Once admitted, students will be mailed instructions regarding course registration and other relevant information. First time college students and transfer students 19 years of age or younger are required to attend an orientation and an advising session prior to registering for classes. Depending upon a student's performance on the ACT or SAT, assessment tests may also be required. 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 19 years old or younger 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. *Students who participate in the SEE program are fully responsible for tuition and fees.* SEE students must meet the following criteria:

- Be currently enrolled in a Colorado high school as a junior or senior
- Demonstrated ability to do college-level work as measured on assessment test scores

To apply for admission through the SEE program, the student must submit the following documents:

- Statewide Agreement Between Colorado School District and a Colorado College High School Concurrent Enrollment Form which includes student, parental, school district, and college administrator signatures.
- A completed MSCD admission application with the required \$25 application fee

Upon receipt of these documents, the student's record is reviewed and the student will be admitted into the SEE Program. SEE students will be required to complete the enrollment process prior to class registration.

Post-Secondary Enrollment Options Program

The Post-Secondary Enrollment Options Program (PSEOP) is a sponsorship program enacted by state law in 1988 that provides high school juniors and seniors 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. To apply for the Post-Secondary Options Program, a student must submit the following:

- A completed MSCD admission application with the required \$25 application fee
- ACT or SAT scores. If a student has not taken an ACT or SAT test, the assessment tests will be required to enter the program.
- Statewide Agreement Between Colorado School District and a Colorado College High School Concurrent Enrollment Form which includes student, parental, school district, and college administrator signatures.

Upon receipt of these documents, the student's record is reviewed and the student will be admitted into the Post-Secondary Program. Post-Secondary students will be required to complete the enrollment process prior to class registration.

Metro Meritus

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, contact the Center for Individualized Learning at 303-556-8342, Central Classroom 106. Application forms are also available on the web at www.mscd.edu/~cil/.

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 US 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 US, 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.

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 US, (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 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. Questions may be referred to Cindy Rossi-Rundle at 303-556-3066.

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 will receive two copies of their 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 transferring between Colorado public institutions, MSCD has instituted procedures for resolving transfer credit disputes. Questions regarding these procedures may be directed to Cristina Martinez in the Office of Admissions at 303-556-3984.

Questions pertaining to a new or continuing student's official transfer credit evaluation should be referred to the transfer evaluator responsible for the evaluation. That person's name and telephone number is found on the letter which accompanies the evaluation sent to the student. General questions regarding transfer evaluation or preliminary evaluation should be referred to the Office of Transfer Services, Central Classroom Building, room 103, 303-556-3774.

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 to MSCD. Specific services provided include the following:

- Weekly visits to local community colleges in the Denver Metro area
- Visits to other Colorado community colleges once or twice annually

- Preliminary transcript evaluation
- Transfer student scholarships
- Referral assistance to academic departments

Transfer counselors are available by appointment and for walk-in counseling. Counselors work closely with transcript evaluators to provide students information about their transfer credits and how those credits may be applied to their degree program. Questions pertaining to a continuing student's official transfer credit evaluation should be referred to the transfer evaluator responsible for the evaluation. That person's name and telephone number is found on the letter which accompanies the evaluation sent to the student. General questions regarding transfer evaluation or preliminary evaluation should be referred to the Office of Transfer Services, Central Classroom Building, room 103, 303-556-3774.

Freshman Admission Eligibility Index

Cumulative High School GPA:

SAT Total: **OR**

ACT Composite:

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. 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 New Student Orientation on MSCD's website (<http://www.mscd.edu/~studlife/nsol/>) or call 303-556-6931.

Reading, Writing and Mathematics Placement Examinations

If the ACT or SAT has been taken within the last two years, some assessment tests may be waived if the following scores are met or exceeded: an ACT subscore at or above 18 in English (SAT verbal of 420), 24 in math (SAT math of 560) or 17 in reading (SAT verbal of 400). For additional information on English or Reading, call 303-556-3677. For additional information regarding mathematics placement, visit the MSCD website at <http://math.mscd.edu> or obtain a hard copy of the Mathematics Group Learning Program brochure from the Academic Advising Center, CN-104. Degree-seeking students who are diagnosed as needing remedial course work have at their disposal basic skills courses offered through the Community College of Denver. Students are responsible for completing remedial course work no later than the end of the freshman year (i.e., within the first 30 semester hours matriculated as a college student).

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: a Four-year Graduation Plan Agreement, 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), or 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 on MSCD's website (<http://www.mscd.edu>).

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.

Pooled Registration

Metro State and the University of Colorado at Denver have formed a common pool of courses available to students at each institution. For the pool, Metro State offers courses through the School of Letters, Arts and Sciences and through the Economics Department in the School of Business. UCD offers courses through the College of Liberal Arts and Sciences.

Students must register for pooled courses through their home institution. Students at Metro State:

- must comply with all Metro State policies, procedures and deadlines when registering for, withdrawing from or dropping UCD pooled courses
- may not be placed on a wait list for any UCD pooled course

For students at Metro State, UCD pooled course titles and grades will appear on the Metro State transcript and will count in the GPA and hours toward graduation; however, UCD pooled courses will not satisfy academic residence requirements for degrees from Metro State. This restriction applies to the residence requirements of the overall degree (30 semester hours minimum), the major (8 upper-division semester hours minimum), and the minor (3 upper-division semester hours minimum).

Metro State/UCD Nonpooled Courses

Students wishing to register for UCD courses not listed in the common pool must follow concurrent registration procedures:

- Complete a UCD admission application.
- Register and pay for UCD courses at UCD.
- Request that official transcripts from UCD be sent to Metro State at the end of the semester.

Students are advised:

- to consult with their academic advisor at Metro State to determine transferability of courses.
- to consult with Metro State's Financial Aid Office if receiving aid.

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. The enrollment status of a student in the interinstitutional registration program 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.

Consortium Registration

Adams State College, Mesa State College and Western State College together with Metropolitan State College of Denver have agreed upon a consortium registration program. 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. Students are charged tuition and fees at the host institution. Information concerning tuition is available at the host institution. The student should begin the consortium registration process 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. The enrollment status of a student in the interinstitutional registration program 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.

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. The Tuition and Fees Table is available on MSCD's website (<http://www.mscd.edu/enroll/admissions/tuition/htm>). 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. Complete information concerning dropping and/or adding classes and the tuition and fee refund schedule can be found on MSCD's website (<http://www.mscd.edu>).

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 on MSCD's website (www.mscd.edu).

Registration Status

The college generally defines full-time status as being registered for 12 semester hours in fall and/or spring semesters, eight semester hours in the summer. However, to complete a degree in four years or eight semesters, students need to take at least 15 hours a semester. Similarly, half-time is generally defined as six semester hours, fall and spring and four semester hours for summer. Less-than half-time is the other term used, which is generally defined as less than six semester hours in the fall and spring and less than four semester hours in the summer. However, for financial aid purposes 12 semester hours is also the full-time standard in the summer. (See page 31 of this *Catalog*). To be eligible, automatically, for health insurance coverage the numbers are 10 semester hours in the fall and spring and eight semester hours in the summer. (See page 27 of this *Catalog*).

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 Instate Tuition Classification Form and the evidence requested must be submitted to the Registrar's Office if a student believes she or he is entitled to instate status.

The tuition classification statute requires that in order to qualify for instate 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) 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 instate 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 available under Academic Calendar on MSCD's website (<http://www.mscd.edu/academic/acal.htm>).

Tuition and College Service Fees

The Board of Trustees, 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 under Tuition and Fees Table on MSCD's website (<http://www.mscd.edu/admissions/tuition.shtml>). 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
Special fees	
Returned check charge	\$17

Tuition Adjustments

Please see the MSCD website (<http://www.mscd.edu>) 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.*

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 on MSCD's website under Student Health Insurance and Waivers 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.** 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) or the Student Accounts Office (CN 110). Waiver forms are available from the SHC website at <http://www.mscd.edu/student/resources/health/>. Students requesting a waiver 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 on MSCD's website (URL given above) (deadline changes from semester to semester).

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 for the semester they enroll and every fall semester thereafter.

All covered services at the Health Center at Auraria are paid at 100 percent after any applicable co-payments. The deductible is waived and there is no need to complete an insurance claim form. The pre-existing condition exclusion clause is also 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 after they pay the semesterly usage fee. Dependents 17 years old or younger are not eligible for services at the Health Center. Please call the insurance office for information regarding pediatric care. In addition, ongoing 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 on MSCD's website (URL given above). 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 at 303-556-3873.

**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. Comparable coverage information may be found at our website or call 303-556-3873.*

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.

The Voluntary Plan has the same deadlines (as listed on MSCD's website under Student Health Insurance and Waivers), plan design, cost and benefit levels as 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 2003-2004 academic year expenses will be as follows:

	Resident	Nonresident
Tuition and Fees	\$3,370	\$9,570
Room and Board	7,875	7,875
Books and Supplies	1,142	1,142
Transportation	765	765
Miscellaneous	1008	1008
	\$14,160	\$20,360

Tuition and fees are set by Metro and College Commission of Higher Education 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 from their high schools or from MSCD's Office of Financial Aid. Most students who completed a 2002-03 FAFSA or Renewal FAFSA will receive a PIN (personal identification number) from the Federal Processor between November, 2002 and January, 2003. This PIN is used for completing the 2003-04 Renewal FAFSA online at 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.

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

Detailed information concerning application procedures is provided in the *Financial Aid Handbook and Scholarship Guide* available over the web at www.mscd.edu.

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 2003-04 academic year will range from \$400 to \$4,000 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 US citizens or eligible non-citizens. This grant is awarded to students who demonstrate exceptional need. The amount of FSEOG awards range from \$100 to \$300 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 US 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 \$100 to \$800 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. Deadline for the submission of the MSCD Scholarship Application is March 1 each year for the next academic year.

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. Students may not have a prior Bachelor's degree. 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 perform a Perkins Loan Entrance Interview over the web 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 perform a Loan Entrance Interview over the web 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).

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.
- 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 officially or unofficially 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 go to MSCD's website (<http://www.mscd.edu>) for more specific information.

Financial Aid as a Form of Payment

Please refer to MSCD's website (<http://www.mscd.edu>) 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 cultivate relationships, motivate participation and create opportunities for a continuous connection among the College, its alumni and the community."

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.

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.

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. With an Auraria I.D., parking is available in the Tivoli lot for a maximum fee of \$5.00.

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.

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 assists students, alumni, faculty, and staff in developing, evaluating, and implementing career plans. Specific services include career assessments online, workshops addressing resume writing, job search strategies, interviewing skills, graduate school information, and undecided career seminars. Career Services also offers MonsterTRAK, an online job-search service for entry-level students and alumni. By registering with MonsterTRAK, candidates can peruse job announcements, access valuable job search resources, post several resumes and cover letters, and network with other candidates, employers and alumni mentors.

Career fairs and employer forums are offered during the fall and spring terms. The events are coordinated collaboratively with employers, student organizations, faculty, staff, and a consortia of colleges and universities.

The Career Library, in CN 203, has both print and electronic resources, such as directories and online employer profiles, job vacancies, salary surveys, job profiles, and graduate school information. Three available computer stations have software programs that include Microsoft Word, the United Way Database (listing of non-profit employers), and an extensive computerized career information system which offers occupational information based on employment characteristics of Colorado and the nation.

For assistance, call 303-556-3664 or log on 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 including 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, Alfred Stieglitz, Romare Bearden and the art of Haiti, West Africa, Australia and Japan. The Center hosts Metro's Senior Thesis exhibition featuring the works of the College's outstanding art students every year and a biannual exhibition of the Metro art faculty.

2003-2004 College Catalog

Education and community outreach is an important facet of the Center with more than 6,000 students and 20,000 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.

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 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 3 to 4 years old and 12:30–3:15 p.m. for children 4 to 5 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. Monday-Friday. For additional information call 303-556-3132. We are located in Tivoli 651.

Disability Services Office

The Disability Services Office (DSO) strives to meet the needs of a large and diverse community of MSCD students with disabilities. With a strong commitment to equal access, DSO staff oversee the provision of a full range of accommodations for students with disabilities. They also work closely with faculty and staff in an advisory capacity,

assisting in the development of reasonable accommodations that allow students with disabilities to demonstrate their abilities.

The following is a list of potential accommodations which may be granted based on the student's disability and how it impacts them in the postsecondary environment:

- Alternative Testing (extra time, private room, reader, scribe)
- Notetaker for classes
- Alternative Text (Braille, enlarged, audiotape, CD)
- Interpreters
- Priority Registration

For further information about our office, please visit our website: www.ahec.edu/dso or contact us at 303- 556-8387 (Voice), or 303-556-8484 (TDD), or e-mail us at ahecdso@ahec.edu. Our office is located in the Arts Building, suite 177.

Extended Campus

Fully accredited courses are offered at two convenient locations in the Denver metro area: Metro South, 5660 Greenwood Plaza Boulevard, Greenwood Village, 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, Transgender Student Services at Auraria

Gay, Lesbian, Bisexual, Transgender (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 transgender identity
- speakers for events 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, Transgender Awareness Month and other forums providing information and dialogue about glbt issues

The GLBT Student Services office is located in the Tivoli Student Union, room 213, 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 or visit www.glbtss.org or e-mail info@glbtss.org.

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 7:50 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.

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. Upon completion of their high school studies, program participants are enrolled in the Upward Bound Bridge Program, prior to pursuing their full-time postsecondary studies at an institution of their choice and ability. 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 School). For additional information call 303-556-2812.

Immigrant Services

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.

Information Technology

Information Technology at Metropolitan State College of Denver provides students with the opportunity to use the most current technology either on campus or from home. Metropolitan State College of Denver offers 30 computer laboratories for use by all current students. The software in laboratories ranges from word processing and computer graphics to the most current engineering software. Information on the location and operating hours of student labs is available in the current class schedule or at www.mscd.edu/~complabs. 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>.

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

RESPONSIBLE USE POLICY

Before any student receives an email account, they are required to read and agree to the *Responsible Use of Technology Resources 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 *Responsible Use Policy* as misuse of computing resources 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 handbook and online at www.mscd.edu/infotech/policies/itpolicy2.htm.

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

Institute for International and Intercultural Education

The College provides assistance to visiting faculty and international 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 Bridge Program

The Metro Bridge Program's mission is to facilitate the successful transition of students graduating from high school and entering college for the first time and to increase the academic preparedness, retention, and graduation of all students who participate in the intensive summer program. This is achieved through the development of academic and social learning communities that unite students from diverse cultural and social backgrounds in an environment that promotes academic excellence and collegiality. Students receive scholarships for the summer program, earn six college credit hours, and participate in enrichment workshops and activities that enhance their summer experience and connection to Metro State College. This office is located on the second floor of the St. Francis Center, room 3. For information call 303-556-4023.

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:

- emergency student loans
- individual budgeting sessions
- financial planning and debt counseling seminars
- 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 (303-556-3559) or access forms online at www.mscd.edu/student/resources/sfrc.

Student Intervention Services

Student Intervention Services (SIS) monitors and tracks two cohorts of the student population at MSCD. SIS governs the Academic Standing Policy, and assists probationary re-admit students upon reentry. Students are notified by mail of their academic status, and encumbrances are placed on their registration. SIS also executes the Early Warning System for the college, providing mid-term grade assessments, support and referral services to students. Our goal is to provide students with a comprehensive and individualized success strategy including assistance with graduation plans, scheduling, advising, and referrals.

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 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 Success

The Student Success Program assists new students who are admitted to Metro State under the alternative admissions process who are identified as potentially needing additional academic support in order to be successful at the College. Our goal is to assist the incoming student by providing comprehensive and individualized services that will lead to improved retention. The office provides peer advising, academic monitoring, tutorial assistance and referral to insure students have the best possible chances of academic success. The personal, confidential and supportive staff is here to help students help themselves.

Students admitted under this provision **must** contact the Student Success Program after they have attended orientation and assessment for academic advising, registration, and to become acquainted with the staff and the services offered. The office is located in the Central Classroom Building 102, 303-556-3043.

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 at Metro. Students enrolled in the program receive tutoring, personal counseling, academic advising, assistance in obtaining financial aid, and opportunities to participate in cultural activities. The program also provides educational and graduate school workshops, computer assisted instruction and basic skills instruction in reading, writing, math, and science, and monitors students academic progress for various scholarship programs such as the PaceSetter Scholarship, the Janus/Pacesetter Scholarship, the Reisher Scholarship, and the Governor's Opportunity Scholarship. The Office of Student Support Services is located in Central Classroom 201. For more information call 303-556-4722.

The Spring International Language Center at Auraria

Intensive English classes at the Spring International Language 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 or visit their website at <http://www.spring-usa.com>.

Tivoli Student Union

The Tivoli Student Union, managed by Student Auxiliary Services, is the heart of campus service and social activities. The Student Union houses Student Government, Activities and Life offices as well as the newspaper offices for the Community College of Denver, Metro State, and the University of Colorado at Denver. Other MSCD offices located here include Metro Athletics, e.den Student Computer Lab, the Counseling Center, New Student Orientation, Testing and Assessment, and the UCD Career Counseling Center. You will also find the tri-institutional office of Legal Services and the GLBT at the Student Union.

2003-2004 College Catalog

Additional student services at the Tivoli Student Union include the Auraria Campus Bookstore, Campus Computers, the Club Hub, Click's Copy Center, Conference Services, and the ID Program and Commuter Resource Center. Conference Services, located in Room 325, will help you make arrangements for meeting space in the Tivoli as well as outdoor table rentals.

If you want a break or a quiet place to study, the Tivoli Student Union is just the place. With a wide variety of food venues you will find a place to suit your appetite, schedule, and budget. If you would rather retreat, you can watch TV in the Roger Braun Student Lounge, play a game of pool at Sigi's Pool Hall and Arcade, meet a study group in the multicultural lounge or study in total silence in the Garage Quite Study Lounge.

For more information about the Tivoli Student Union, call 303-556-6330.

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, room 7. For information call 303-556-4054 or 303-556-6439.

Veterans Services

The Veterans Services Office assists students in procuring their GI Bill entitlement. The Veterans Services Office acts as the liaison between the US 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

The Veterans Upward Bound is a federally funded GED/college preparatory program designed to provide academic refresher training and advising to qualifying veterans who are pursuing a GED certificate and/or are preparing to enter post-secondary education. Academic instruction is available in the subject areas of English, mathematics, science, social studies, computer literacy and foreign language. This program is also an opportunity for veterans to re-establish fundamental ideas and study habits which are prerequisites for successful performance at the post-secondary educational level. Additionally, Veterans Upward Bound provides access to academic resources, employment referrals, assistance with VA benefits applications, and referrals to various community assistance organizations.

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 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, formulating a strategy for resolution, and informing them about the institutional process for resolving the issue. For additional information, please refer to the *Student Handbook* or visit the Tivoli, room 311.

Judicial Affairs

The responsibility of the Office of Judicial Affairs is to administer the discipline system for MSCD. MSCD's Standards of Conduct clearly state the college's expectations for student behavior. For additional information, refer to the *Student Handbook* or visit 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. The office is located at the Tivoli Student Union, room 305, 303-556-2595. Office hours are 8 a.m.-5 p.m., Monday through Friday.

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 Metro experience. In addition to the elected executive and judicial branches of SGA, students' interests are represented on the Board of Trustees through their BOT Trustee representative and on the Auraria Board through their SACAB (Student Advisory Committee to the Auraria Board) representatives.. 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.

2003-2004 College Catalog

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 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 national examinations, departmental 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 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 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.

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
English (Lang & Comp)		ENG 1010-3	ENG 1010-3 ENG 1020-3	ENG 1010-3 ENG 1020-3

2003-2004 College Catalog

Gov't & Politics (US)		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 2341-1	PHY 2311-4 PHY 2321-1 PHY 2331-4 PHY 2341-1	PHY 2311-4 PHY 2321-1 PHY 2331-4 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 SPA 2320-3
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 GER 2320-3
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 GER 2320-3
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 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 a series of national standardized examinations. They are designed to evaluate nonaccredited college-level learning in order to award credit for successful demonstration of this knowledge.

Based on the results of one or more of the following examinations: English composition with essay, humanities, natural sciences, college mathematics and social science/history, 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.

Thirty (30) semester hours of credit may also be awarded under the remaining approved examinations, making a total of 54 semester hours of credit obtainable under a combination of the two series of examinations.

- Credit earned through the English composition with essay, humanities, natural sciences, social sciences/history, and college mathematics examinations may be applied only to General Studies requirements. Credit earned through the other approved 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. Students may take CLEP examinations prior to meeting the 8 credit hour residency requirement, in which case the scores will be maintained in the student's record and appropriate credit awarded when the 8 credit hour residency requirement is met.
- 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.
- 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 examination may be repeated 6 months after the date of the previous examination.

For advising assistance with CLEP examinations and information 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 official testing centers within the metropolitan area and within Colorado can be found through the College Board web site listed above.

CLEP Exam Standards

CLEP Exam	Minimum Score for MSCD Credit	MSCD Credit	MSCD Category	No Credit for Prior Enrollment-2
English Composition with Essay	50	3	Freshman Composition	ENG 1010
Natural Sciences-1	50	6	Natural Sciences	BIO 1000 AST 1040 CHE 1010 GEL 1010 PHY 1000
Mathematics	50	3	Mathematics	MTH 1080
College Algebra	54	3	Mathematics	MTH 1110 (4)
Trigonometry	54	3	Mathematics	MTH 1120 (4)
College Algebra-Trigonometry	54	3	Mathematics	MTH 1110, 1120, 1400 (4)
Calculus	54	3	Mathematics	MTH 1110, 1120, 1400, 1410
Humanities-1	50	6	Arts and Letters	ART 1040

2003-2004 College Catalog

				MUS 1000
				ENG 1100, 1110 or ENG 1120
Social Science and History-1	50	6	Social Science	ECO 2010
				HIS 1000
				PSC 1010
				PSY 1001
				SOC 1010
American Government-1	56	3		PSC 1010
American Literature	55	3		ENG 2210, 2220
Analysis and Interpretation of Literature-1	60	3		ENG 1100, 1110, 1120
English Literature	55	3		ENG 2310, 2330
French Language	50	10		FRE 1010, 1020
	62	16		FRE 1010, 1020, 2010, 2110
General Biology- 1	57	3		BIO 1000
General Chemistry	63	4		CHE 1800
	69	8		CHE 1800, 1810
German Language	50	10		GER 1010, 1020
	63	16		GER 1010, 1020, 2110, 2310
History of the US I	55	3		HIS 1210

2003-2004 College Catalog

History of the US II	56	3	HIS 1220
Human Growth and Development-3	60	3	PSY 2210
Introductory to Psychology-1,3	60	3	PSY 1001
Introductory Sociology-1	58	3	SOC 1010
Information Systems and Computer Applications	66	3	CMS 1010, CSS 1010
Principles of Macroeconomics-1	59	3	ECO 2010
Principles of Marketing	62	3	MKT 3000
Principles of Microeconomics	61	3	ECO 2020
Principles of Management	50	3	MGT 3000
Spanish Language	50	10	SPA 1010, 1020
	66	16	SPA 1010, 1020, 2110, 2120
Western Civilization I	58	3	HIS 1010
Western Civilization II	57	3	HIS 1020

1. Although the examinations are essentially independent, where there is overlap between examinations, 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 lists 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. These two examinations will not count toward General Studies requirements.

4. Students wanting to take Calculus I at MSCD would first have to pass the departmental calculus placement exam.

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

A department may grant a student credit for college courses for which the student requests and passes appropriate examinations. The charge for each credit hour requested is one-half the in-state tuition for one credit hour, and must be paid prior to taking the examination. A maximum of 30 semester hours of credit may be awarded through departmental credit by examination. Credit through departmental examination is based on knowledge equivalent to a regular course offered the the College. (Omnibus-numbered courses are excluded.) Permission for departmental credit by examination must be obtained in advance from the instructor giving the examination, the department chair, and the appropriate dean.

To earn credit by examination, a student must be currently enrolled in good standing in a degree or certificate program at the College. Credit by examination may not be counted as part of the last 12 credit hours of a degree program unless it is approved by the Board on Academic Standards Exceptions (BASE). Applications for submitting a request to BASE are available in the Office of Academic Affairs, CN 318, 303-556-3907.

If a student has registered for a higher-numbered course in a sequence, the exam for a prerequisite for that higher numbered course must be completed within the first three weeks of the semester. Credit by examination for a course which is a prerequisite for a course already completed will not be granted unless approved by BASE.

Examinations cannot be taken to raise grades, to remove failures, or to remove “NC,” “SP,” “I,” or “CC” notations. Credit by examination is not applicable toward academic residency requirements. Credit by examination cannot be obtained for a course in which a student has been enrolled at MSCD or at another regionally accredited college or university unless approved by BASE. Credit by examination will not be granted for courses attended as a listener, visitor, or auditor.

Examinations for credit will be taken at a time specified by the department. A grade equivalent to “A” or “B” must be attained on the examination in order to receive credit, but credits so earned for the course will be recorded without a grade on the student’s permanent record and are not considered in computing college grade point averages.

The hours granted for credit by exam are not included as a part of the student’s semester enrollment. The credit will appear on the transcript for the semester in which the examination was taken, but the hours do not count as part of the student’s total enrollment for the purposes of financial aid or any other purpose predicated on total hours of enrollment for a given semester.

Credit by examination will be posted after a student has completed eight semester hours of credit at Metropolitan State College of Denver, and after an evaluation of all transfer credit has been completed. The application form will be maintained in the student’s file. No record of failures on such examinations will be entered on the student’s permanent record. Departmental examinations attempted for course credit under these guidelines may not be repeated.

Applications for departmental credit by examination are available at the Center for Individualized Learning, (CN 106, 303-556-8342) and from the Office of the Registrar (CN 105).

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.

Policies which govern credit for prior learning options apply to credit awarded through the portfolio process. The charge for each credit hour requested is one-half the instate tuition for one credit hour.

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, and information is available on our website: www.mscd.edu/~cil.

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 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 course work 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. Visit our website for additional information: www.mscd.edu/~coopcd.

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.

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: 1045 Ninth Street Park; 303-556-3290.

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 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

Required Honors Core	Semester Hours
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2003-2004 College Catalog

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
<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, an extended major or a 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. Information is also available on our website: www.mscd.edu/~cil.

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.

2003-2004 College Catalog

- 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 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 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 US 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

2003-2004 College Catalog

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.

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.

State Guaranteed General Education Courses

Certain of MSCD's General Studies courses are approved as state guaranteed general education courses. This designation means that the course is transferable to general education or to electives at all Colorado public institutions and all undergraduate degree programs. General Studies courses not identified as guaranteed state transfer are also eligible for transfer to other institutions of higher education. Even if a state guaranteed course is selected, students need to select their General Studies courses with care. There is a Colorado core framework that restricts the number of state guaranteed courses that can be taken and applied to general education. In addition, certain statewide articulation agreements require specific General Studies courses. The six credits of composition,

2003-2004 College Catalog

ENG 1010 and ENG 1020, will be acceptable anywhere in the state. With the exception of the sciences, students are advised to take only one state guaranteed course in each category below to maximize applicability for general education at another institution. For details go to <http://www.state.co.us/cche/gened/>. State guaranteed general education courses are designated with a GT for Guaranteed Transfer. The rest of the code indicates the part of the core to which the course applies.

GT-AH1 Arts

GT-AH2 Literature

GT-AH3 Ways of Thinking

GT-CO1 Intro. Writing Course

GT-CO2 Intermediate Composition

GT-HI1 History

GT-MA1 Mathematics

GT-SC1 Physical and Life Sciences

GT-SS1 Economic and Political Systems

GT-SS2 Geography

GT-SS3 Human Behavior and Social Systems

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.

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 Reading, Writing and Mathematics Placement Examinations). Examination results serve 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. Degree-seeking students who are diagnosed as needing remedial course work have at their disposal basic skills courses offered through the Community College of Denver. Students are responsible for completing remedial course work no later than the end of the freshman year (i.e., within the first 30 semester hours matriculated as a college student). Students should be aware, however, that no credit is given for courses that are below the college level. Also, please see page 24 of this Catalog.

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)

ao	ENG 1010 (GT-CO1)	Freshman Composition: The Essay	3
AO	ENG 1020 (GT-CO2)	Freshman Composition: Analysis, Research & Documentation	3

(“AO” indicates that the course is available online.)

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 (ENG 1010 only) or AP examination approved by the English Department, or
 - transfer equivalent courses.

MATHEMATICS (minimum 3 semester hours)*

	MTH 1080	Mathematical Modes of Thought	3
	MTH 1110 (GT-MA1)	College Algebra	4
AO	MTH 1210 (GT-MA1)	Introduction to Statistics	4
AO	MTH 1310 (GT-MA1)	Finite Mathematics for the Management & Social Sciences	4
	MTH 1610	Integrated Mathematics I	4

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
AO	SPE 1010	Public Speaking	3
	SPE 1620/MDL 1620	American Sign Language II	3
AO	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
 - 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:
 - 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.

	FRE 3550	French Historical Perspectives	3
	HIS 1000	American Civilization	3
	HIS 1010/HON 1010 (GT-HI1)	Western Civilization to 1715	3
	HIS 1020/HON 1020 (GT-HI1)	Western Civilization since 1715	3
AO	HIS 1030	World History to 1500	3
AO	HIS 1040	World History since 1500	3
	HIS 1110	Colorado History I	3
AO	HIS 1210 (GT-HI1)	American History to 1865	3
AO	HIS 1220 (GT-HI1)	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 Chicana/o in the Southwest: 1810 to Present	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 3060	Rome and the Caesars	3
mc, AO	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
mc	HIS 4110/HON 3850	American Culture I	3
	HIS 4120/HON 3860	American Culture II	3
	HON 1010/HIS 1010 (GT-HI1)	Western Civilization to 1715	3
	HON 1020/HIS 1020 (GT-HI1)	Western Civilization since 1715	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; "AO" indicates that the course is available online.

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.

mc	AAS 3240/ENG 3240	African American Literature	3
	ART 1040	Art Appreciation Survey	3
	ART 2040/MUS 2040	An Integrated Approach to Art and Music	3
	ART 2850/ENG 2850/SPE 2850	Introduction to Cinema Studies	3
mc	ART 3090	Art & Cultural Heritage	3
	ART 3950/WMS 3950	Women's Art/Women's Issues	3
AO	CHS 2010/ENG 2410	Survey of Chicana/o Literature	3
AO	ENG 1100	Introduction to Literature	3
	ENG 1110	Introduction to Fiction	3
	ENG 1120	Introduction to Drama	3
	ENG 1310	Introduction to Shakespeare	3
AO	ENG 2410/CHS 2010	Survey of Chicana/o Literature	3
	ENG 2460	Introduction to Children's Literature	3
	ENG 2850/ART 2850/SPE 2850	Introduction to Cinema Studies	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
	FRE 3110	Survey of French Literature I	3
	FRE 3120	Survey of French Literature II	3
	GER 3200	German Culture & Civilization	3
	HON 1011/PHI 1010	Introduction to Philosophy	3
	HON 2750	The Legacy of Arts & Letters I	3
	HON 2760	The Legacy of Arts & Letters II	3
	MTH 3400	Chaos and Nonlinear Dynamics	4
AO	MUS 1000 (GT-AH1)	Introduction to Music	3
	MUS 2040/ART 2040	An Integrated Approach to Art and Music	3
mc	MUS 3000	Musics of America	3

2003-2004 College Catalog

mc	MUS 3020	Jazz Styles-America's Music	3
mc	MUS 3050	Musics of the World	3
	PHI 1010/HON 1011	Introduction to Philosophy	3
	PHI 1030	Ethics	3
	PHI 3000	History of Greek Philosophy	3
	PHI 3020	History of Modern Philosophy	3
AO	PHI 3360	Business Ethics	3
	PHI 3370	Computers, Ethics, and Society	3
AO	PSC 3050	Political Theory	3
AO	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 2850/ART 2850/ENG 2850	Introduction to Cinema Studies	3
	SPE 3080	Great American Speakers	3
AO	SPE 3740	Psychology of Communication	3
mc, AO	SPE 3760	Cultural Influences on Communication	3
	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; "AO" indicates that a course is available online.

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.

Mc	AAS 1010	Introduction to African-American Studies	3
mc, AO	AAS 2100/ CHS 2100/ ICS 2100/ NAS 2100/ WMS 2100	Women of Color	3
mc	AAS 2200/PSC 2200	Politics & Black People	3

2003-2004 College Catalog

mc	AAS 3300/SOC 3140	The Black Community	3
	AAS 3550/SOC 3440	The Black Family	3
AO	ACC 1010	Accounting for Non-Business Majors	3
	ANT 1310 (GT-SS3)	Introduction to Cultural Anthropology	3
mc	ANT 2330	Cross-Cultural Communication	3
mc	ANT 3310	Ethnography of North American Indians	3
mc, AO	ANT 3480	Cultural Diversity in Health & Illness	3
mc, AO	CHS 1000	Introduction to Chicana/o Studies	3
mc, AO	CHS 2100/ AAS 2100/ ICS 2100/ NAS 2100/ WMS 2100	Women of Color	3
mc	CHS 3100/SOC 3130	The Chicana/o Community	3
	CHS 3210/SOC 3470	The Chicano Family	3
AO	CJC 1010	Introduction to the Criminal Justice System	3
mc	ECE 4360	Cultural Influence on the Socialization of Children	3
AO	ECO 2010	Principles of Economics-Macro	3
AO	ECO 2020	Principles of Economics-Micro	3
mc	EDS 3110	Processes of Education in Multicultural Urban Secondary Schools	3
AO	EDS 3200	Educational Psychology Applied to Teaching	3
	FIN 2250	Personal Money Management	3
	FRE 3560	Contemporary Socio-Cultural Issues	3
AO	GEG 1000	World Regional Geography	3
AO	GEG 1300	Introduction to Human Geography	3
	GEG 1920	Concepts and Connections in Geography	3
	GEG 2020	Geography of Colorado	3
mc	GEG 3300/ NAS 3300/ PSC 3300	Land Use, Culture & Conflict	3
AO	HES 1050	Dynamics of Health	3
	HES 2000	Health Politics & Policy	3
	HES 2180	AIDS: Acquired Immune Deficiency Syndrome	3
	HIS 3660	Recent US, 1945-1990s	3
mc, AO	HMT 1850	Multicultural/Multinational Cultural Adjustment/Readjustment	3
AO	HON 1001/PSY 1001 (GT-SS3)	Introductory Psychology	3
	HON 3800	Revolutions & Social Change I	3

2003-2004 College Catalog

	HON 3810	Revolutions & Social Change II	3
	HPS 2720	Fundamentals of Coaching	2
mc, AO	HSP 3490	Multicultural Issues in Human Services	4
mc	ICS 1000	Introduction to Asian American Studies	3
mc, AO	ICS 2100/ AAS 2100/ CHS 2100/ NAS 2100/ WMS 2100	Women of Color	3
AO	IND 2810	Technology, Society & You	3
	JRN 1010	Introduction to Journalism & Mass Media	3
	LES 4730	Sociology of Athletics in American Society	3
AO	MKT 2040	Managerial Communications	3
mc	NAS 1000	Introduction to Native American Studies	3
mc, AO	NAS 2100/ AAS 2100/ CHS 2100/ ICS 2100/ WMS 2100	Women of Color	3
mc	NAS 3200/PSC 3200	Native American Politics	3
mc	NAS 3300/ GEG 3300/ PSC 3300	Land Use, Culture & Conflict	3
AO	PSC 1010	American National Government	3
AO	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
AO	PSY 1001/HON 1001 (GT-SS3)	Introductory Psychology	3
	PSY 1800	Developmental Educational Psychology	4
	PSY 2160	Personality & Adjustment	3
AO	PSY 2210	Psychology of Human Development	3
	PSY 3250	Child Psychology	3
	PSY 3260	Psychology of Adolescence	3
mc, AO	SED 2200	Diversity, Disability and Education	3
AO	SOC 1010 (GT-SS3)	Introduction to Sociology	3
mc	SOC 1040	Introduction to Social Gerontology	3
	SOC 2010	Current Social Issues	3

2003-2004 College Catalog

mc	SOC 3130/CHS 3100	The Chicana/o 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
AO	SWK 1010	Introduction to Social Welfare & Social Work	3
AO	WMS 1001	Introduction: Woman in Transition	3
mc, AO	WMS 2100/ AAS 2100/ CHS 2100/ ICS 2100/ NAS 2100	Women of Color	3
mc	WMS 3220/SOC 3220	Race, Gender & Ethnic Groups	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; "AO" indicates that the course is available online.

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.

	ANT 1010	Physical Anthropology & Prehistory	3
AO, sp	AST 1040/AST 1040	Introduction to Astronomy	3
	AST 3040	Modern Cosmology	3
AO, SP	BIO 1000/BIO 1000	Human Biology for Non-Majors	3
SP	BIO 1010/BIO 1010	Ecology for Non-Majors	3
AO, SP	BIO 1080/BIO 1080* (GT-SC1)	General Introduction to Biology	3
	BIO 1090* (GT-SC1)	General Introduction to Biology Laboratory	1
AO	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
AO	CHE 1100**	Principles of Chemistry	4
	CHE 1150**	Principles of Chemistry Laboratory	1
	CHE 1850 & either CHE 1800 or 1810***	General Chemistry I or II	6
	CHE 3100	Organic Chemistry I	4

2003-2004 College Catalog

	CHE 3120	Organic Chemistry I Lab	2
	EET 1001	Electronics: An Introduction	3
AO	ENV 1200	Introduction to Environmental Sciences	3
	ENV 1400	World Resources	3
	GEG 1100	Introduction to Physical Geography	3
	GEL 1010	General Geology	4
	GEL 1020	Geology of Colorado	3
	GEL 1030	Historical Geology	4
	GEL 1150	Oceanography	3
	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 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
	HPS 3300	Anatomical Kinesiology	3
	HPS 3340	Physiology of Exercise	3
	MET 3550	Rockets & Stars - A Space Trek	3
AO	MTR 1400	Introduction to Meteorology	3
	MTR 3500	Hazardous Weather	3
AO	NUT 2040	Introduction to Nutrition	3
AO, SP	PHY 1000/PHY 1000	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. This is true also for State Guaranteed General Education credit.

**CHE 1100 and CHE 1150 must be successfully completed to receive General Studies credit.

***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; "AO" indicates that the course is available online.

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 course 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
AO	ANT 3480	Cultural Diversity in Health and Illness	3
	ART 3090	Art & Cultural Heritage	3
AO	CHS 1000	Introduction to Chicana/o Studies	3
	CHS 1010/HIS 1910	History of Meso-America: Pre-Columbian & Colonial Periods	3
	CHS 1020/HIS 1920	History of the Chicana/o in the Southwest: 1810 to Present	3
	CHS 3100/SOC 3130	The Chicana/o Community	3
	CHS 3200/CJC 3720	Chicanos and the Law	3
	ECE 2340	Foundations of Early Childhood Education	3
	ECE 4360	Cultural Influence on the Socialization of Children	3

2003-2004 College Catalog

	EDS 3110	Processes of Education in Multicultural Urban Secondary Schools	3
AO	EDU 3100	Social Foundations and Multicultural Education	4
	ENG 2240	Native American Literatures	3
	GEG 3300/ NAS 3300 PSC 3300	Land Use, Culture & Conflict	3
AO	HIS 3090	Native Americans in American History	3
	HIS 3590	American Immigration History	3
	HIS 4110/HON 3850	American Culture I	3
AO	HMT 1850	Multicultural/Multinational Cultural Adjustment/Readjustment	3
AO	HSP 3490	Multicultural Issues in Human Services	4
	ICS 1000	Introduction to Asian American Studies	3
	MGT 4830	Workforce Diversity	3
	MUS 3000	Musics of America	3
	MUS 3020	Jazz Styles-America's Music	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
	PSY 3700/AAS 3700/CHS 3700/WMS 3700	Psychology of Group Prejudice	3
AO	SED 2200	Diversity, Disability and Education	3
	SOC 1040	Introduction to Social Gerontology	3
	SOC 3220/WMS 3220	Race, Gender & Ethnic Groups	3
AO	SPE 3760	Cultural Influences on Communication	3
	XXX 1190	*First Year Seminar	3
AO	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 program and must take the course or courses at MSCD. Senior Experience courses have the following minimal prerequisites:

2003-2004 College Catalog

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 4580	Student Teaching and Seminar: Elementary K-6	6
	ART 4590	Student Teaching and Seminar: Secondary 7-12	6
	ART 4750	Senior Experience Studio: Portfolio Development & Thesis Show	3
	ART 4751	Communication Design Senior Experience: Portfolio Development	3
	ART 4755	Exhibiting the Art Object	3
	BIO 4510	Microbial Ecology	4
	BIO 4540	Plant Ecology	4
	BIO 4850	Evolution	3
	CHE 4710	Criminalistics Internship II	6
	CHE 4950	Senior Experience in Chemistry	3
	CHS 4850	Research Experience in Chicana/o Studies	3
	CJC 4650	Ethics for the Criminal Justice Professional	3
	COM 4410	Budgeting & Planning for Audio-Visual Productions	3
AO	COM 4790	Senior Seminar in Technical Communications	3
	CSI 4260	Software Engineering Practices	4
	ECE 4380	Developmentally Appropriate Practice II: Field Experience	1
	ECE 4390	Student Teaching and Seminar: Early Childhood (Preschool-3rd Grade)	6, 12
AO	ECO 4600	History of Economic Thought	3
	EDS 4290	Student Teach & Seminar: Secondary 7-12	6,12
	EDU 4190	Student Teaching & Seminar: Elementary K-6	6,12
	EET 4100	Senior Project	1
	EET 4110	Senior Project II	2
	ENG 4520	Advanced Writing	3
	ENG 4610	Theories & Techniques in Literary Criticism	3
	ENG 4640	Teaching English, 7-12	3
	ENG 4660	Teaching Literature & Language, K-6	3
	ENV 4960	Global Environmental Challenges	3
	ENV 4970	Environmental Field Studies	3
	FRE 4520	Modern French Theater	3
	FRE 4530	The French Novel	3
	GER 4200	Major German Authors	3
	GER 4400	German for Business II	3

2003-2004 College Catalog

	GER 4410	Advanced Translation Techniques	3
	GIS 4890	Advanced GIS Laboratory	3
AO	HCM 4510	Health Care Management Practicum	6
	HES 4520	Internship in Gerontology	3-6
	HES 4970	Internship in Holistic Health and Wellness	3
	HIS 4820	Senior Seminar	3
AO	HMT 4040	Senior Hospitality Research Experience I	2
AO	HMT 4400	Senior Hospitality Research Experience II	2
	HPS 4600	Organization, Admin. of Human Performance & Sports Prog.	3
	HPS 4850	Seminar in Athletic Training	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
	IND 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
AO	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
	MUS 4360	Instrumental Music Methods and Materials	2
	MUS 4370	Vocal Music Methods and Materials	2
	MUS 4510	Advanced Conducting	2
	MUS 4740	Senior Recital Performance	4
	MUS 4790	Senior Recital Project	1
	MUS 4950	Senior Project	3
	NUR 4850	Nursing Senior Experience	4
	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
	PSY 4960	Senior Thesis in Human Development	3
	RDG 4600	Practicum in Literacy Enhancement	3
	SED 4490	Special Education Student Teaching and Seminar: Elementary	6
	SED 4500	Special Education Student Teaching and Seminar: Secondary	6
	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
	SPE 4090	Classical Rhetoric	3
	SPE 4120	Freedom of Speech	3
	SPE 4500	Clinical Methods in Communication Disorders	3
	SPE 4790	Communication Theory Building and Research Methodology	3
	SUR 4300	Geodesy II	3
	SUR 4530	Site Planning	3
	SUR 4540	Boundary Law II	3
	SWK 4810 (A-G)	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; "AO" indicates that the course is available online.

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 designated 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-semester 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 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.

Declaring/Changing a Major

Applicants to The Metropolitan State College of Denver may indicate their intended major on the MSCD Application for Admission. 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. 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.

Curriculum, Advising, and Program Planning (CAPP)

CAPP produces a Compliance Report that is an advising tool to be used by students and their advisor throughout the students' academic career at MSCD. Students with declared majors and/or minors should discuss their progress towards completion of their major (minor) program with their faculty advisor. They should have a CAPP Compliance Report run no later than the start of the senior year. CAPP Compliance Reports can be run in the student's major department. Approved adjustments to the CAPP Compliance Report should be submitted as soon as possible by the department to the Office of the Registrar. Degree-seeking students must apply for degree candidacy by completing an Application for Graduation in the Office of the Registrar at the start of their final semester.

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 degree Catalog in effect while they are enrolled at MSCD unless they are transferring from a regionally accredited Colorado community college, provided that the degree 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 degree Catalog selected does not predate the current catalog by more than three years.
- The degree 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.

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 Academic Calendar section of this *Catalog* and on MSCD's website

(<http://www.mscd.edu/academic/acal.htm>). 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.

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. Summer graduates are invited to attend the following fall commencement. For commencement information, call 303-556-6226.

Transcripts of Records

An official transcript is a certified copy of a student's permanent academic record. Transcripts are free. There is a charge for faxed transcripts. 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.

Falsified Transcripts and Diplomas

Altering, modifying, tampering with, or in any way falsifying an official Metropolitan State College of Denver transcript or diploma is a crime. The College has implemented multiple measures to detect such conduct. To protect the integrity and value of a Metro State degree, the Attorney General will vigorously prosecute those who commit these crimes through the criminal justice system.

In addition, students found responsible for falsifying an official MSCD transcript or diploma, will face a College judicial hearing and appropriate sanctions may be imposed, including suspension, dismissal and loss of credit, which could affect the student's permanent record.

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. Due to wide variation in definition and interpretation of class rank, by policy the College does not rank its students or graduates. 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 within the first two weeks of the following semester. Questions should be directed to the Office of Academic Affairs at 303-556-3040.

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.
- 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 303-556-3040.

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
(Grade)# - Preparatory - 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, enrollment 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 internships, practicums, field experience courses and workshops)

SA - Study Abroad - credit

SE - Satisfactory/Education (limited to ECE 4390, EDS 4290, EDU 4190, EDU 4590, SED 4190 and SED 4500)

SN - Study Abroad - no credit

2003-2004 College Catalog

U – Unsatisfactory (equals “F” and computed in GPA)

UE – Unsatisfactory/Education (equals “F” and computed in GPA)

I (Incomplete)

The Incomplete (I) notation may be assigned when a student, who was achieving satisfactory progress in a course and who had completed most class assignments, is 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 within one year, the “I” notation will convert to an “F.”

Graduating seniors may not graduate with an “I” on their MSCD academic record if:

- the course in which the “I” was assigned is required for graduation, or
- a D or F assigned for that course would result in an overall GPA less than 2.00.

The “I” notation may not be given for a self-paced course. If a student does not complete a self-paced course within the semester s/he enrolled in the course, s/he must re-enroll in the course in order to complete it.

If a student receives an “I” in an online class, the instructor should contact Instructional Technology who will add the student to the online course roster so that the student will be able to logon to the course. This must be done by the instructor each semester the student continues to work on the course.

In order for an “I” to be changed to a letter grade, the incomplete work must be completed for the course for which the student originally registered. The student should not re-enroll for the same course unless his/her intent is to retake the entire course. In this case, the student will pay tuition and fees.

NC/Withdrawal (No Credit)

The No Credit (NC) notation is not a grade. It may indicate withdrawal from the course or course repetition. (The NC should not be confused with a schedule change during the first 12 days of the fall or spring term [8 days for the summer term]. During this period a student may drop a course, and it will not appear on the student's academic record.)

The “NC” notation may be used in self-paced courses to indicate that the student has not completed the self-paced course(s) and requires additional time 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. Deadlines as described in this section apply.

- The following minimal standards shall be required throughout the college and shall be a part of all school, department, and individual faculty policies. The following is for full term classes for fall and spring semesters. Specific NC deadlines for full-term classes for fall, spring and summer semesters are published in that term's class schedule. Prorated deadlines are available from the Office of the Registrar and the Student Accounts office for “part-of-term” classes. “Part-of-term” classes are those classes which have start and/or end dates different from those of full-term classes. The “NC” notation is available to students for full term classes in all instances from the 12th day of the term through the fourth week of classes for fall and spring semesters. The period during which students may request an NC without the faculty member's signature will be established for summer, part-of-term and weekend courses based on percentages of the term. Deadlines for weekend and “part-of-term” classes are available from the Office of the Registrar and from the Student Accounts office. The deadline for requesting an NC without faculty approval for full-term classes is published in the class schedule for each term.

- During this period, students may request an NC ONLY through the voice response system, calling the same number that is used for registration and to retrieve grades. NCs are not available through the web registration system.
- Students reducing their course load between the beginning of the fifth and the end of the tenth week of full term classes during fall and spring semesters may receive an "NC" notation for each course provided faculty approval is granted and indicated on the request form by the faculty member's signature or the department chair's signature in the case of the absence of the faculty member who is the instructor of record. NC request forms with the instructor's signature for full term classes are due to the Office of the Registrar by the deadline noted in the class schedule for any given term. Part-of-term NC deadlines are available from the Office of the Registrar or the Office of Student Accounts.
- 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). Such additional restrictions should be included in the instructor's class outline and policies which are distributed to all students on the first day of class.
- Student requests for an "NC" notation in a given course will not be granted after the tenth week of the fall and spring semester or after the published date for summer term for full-term classes (or after the part-of-term deadlines for requesting an NC with the signature of the faculty member) unless the request is approved by the faculty member, the department chair and the dean. The "I" notation may be used during this period, provided the conditions specified in the "I" explanation above apply.
- Proportional time frames are applied for part-of-term courses, weekend courses, workshops and summer terms. These deadlines are available from the Office of the Registrar or the Office of Student Accounts. Deadlines for full-term summer classes are published in the class schedule.
- 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. If attendance is a part of the grading criteria, that policy should be included in the individual faculty member's class policies and outline and distributed to students on the first day of class.

Students who withdraw from a course or courses because of the death of an immediate family member, serious illness or medical emergency, or employment changes beyond the control of the student may file a Tuition and Fees Appeal Form through the Office of Student Accounts. In these cases, the student is still required to obtain an NC for each course s/he is withdrawing from according to the guidelines above. If the student is incapacitated and unable to contact his/her instructor(s), the student or her/his representative, may contact the Office of the Registrar, the academic department chair, or the dean for assistance in contacting the faculty and requesting withdrawal as indicated by the NC notation.

Computing Grade Point Average/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 number of quality points 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, SE, SN.

Pass-Fail Option

The pass/fail option encourages students to venture out of their major and minor fields and thereby broaden their educational experience. A student must declare interest in the pass/fail option no later than the twelfth 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 Academic Calendar on MSCD's website (<http://www.mscd.edu/academic/acal.htm>) for specific deadlines) by contacting the Office of the Registrar and completing the Request for Pass/Fail Option. Once

approved, the request for the pass/fail option is irrevocable. A student who requests the option and later is declared ineligible will receive written notification from the Office of the Registrar.

Students who have completed at least one MSCD course with at least a 2.00 cumulative GPA may choose to be evaluated for a certain course on a pass/fail basis rather than by a letter grade. Major, minor, General Studies and other courses required for a degree and courses 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 pass/fail courses is 18 credit hours earned in no more than six courses and limited to one course per semester or part-of-term. Course work must be graded to determine if it is pass or fail.

The "pass" grade (P) has no effect on the GPA; the "fail" grade is equivalent to the grade of "F." The "pass" grade (P) is equivalent to the grade of D or better. Pass/fail courses are under the same "NC" guidelines and deadlines as other courses in the institution which are those established college-wide and those which are established by individual school and department regulation.

The instructor will assign and record the pass/fail grade on the final grade list that identifies students electing and eligible for pass/fail grading. Some institutions do not accept credit in transfer for courses in which a "pass" grade is given. Therefore, students who plan to transfer or take graduate work should determine whether the institution of their choice would 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 Metropolitan State College of Denver 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 all prior attempts will be changed to the "NC" notation unless a permanent F has been assigned. Repeated courses must carry the same title, course number and semester hours. To make a course change, the student must reregister and pay the full tuition for the course in question, complete the course earning a letter grade, and complete the Last Grade Stands form in the Office of the Registrar. 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 be treated differently from the above procedures (see number 4 below). A FAILING COURSE GRADE ASSIGNED AS A RESULT OF ACADEMIC DISHONESTY IS CONSIDERED A PERMANENT "F" AND CANNOT BE CONSIDERED UNDER THIS POLICY. A student may not repeat a course and request "last grade stands" after the completion of an MSCD degree which includes the course in question. Specifically:

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 an "NC" (no credit, withdrawal) notation. The NC notation does not affect the credit total and GPA.
2. The determination of course equivalency will be made by the Office of the Registrar in consultation with the academic department.
3. If the student does not request that the previous grade(s) of a course be changed to an "NC" after the course is repeated, the changes will be made at the time of graduation evaluation. The Last Grade Stands Policy cannot be used after the student graduates from the College for courses taken prior to the date the degree is awarded.
4. Students who have earned a degree at MSCD and subsequently take additional courses or work towards a second degree may use last grade stands for courses for which the original enrollment is after the first degree is awarded.
5. 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.
6. 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 course will not be changed to an "NC," but rather, the transfer credit will be disallowed.

7. 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.
8. 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 an "NC" notation with the use of the grade exception form.

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 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:

- 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 readmitted 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.

Withdrawal/Emergency

Students who must withdraw from all classes during a semester due to a serious personal or medical emergency should contact the Student Accounts Office, CN 110, 303-556-6188 for assistance and information on emergency withdrawal procedures.

Students who must withdraw from all classes during a semester due to a military or state call to action should contact Veterans' Services, CN 105, 303-556-2993 for assistance.

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 2003 fall semester and the 2004 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. An abbreviated version of the policies and procedures are contained in this section. For the complete *Student Rights and Responsibilities*, you may access the web at http://www.mscd.edu/~themet/Handbook02_03/content/standards.html#standards1 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 all petitions, and the petitions must be signed by the appropriate dean and department chair. For more information, contact the Office of Academic Affairs, 303-556-3040.

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 Tivoli 311, Central Classroom 313, or via the web at: http://www.mscd.edu/~themet/Handbook02_03/content/standards.html#standards1.

Student Conduct Code

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

Respect for Rights of Others

The student assumes certain obligations of performance and behavior while attending MSCD. 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. MSCD 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:

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/or course outline. Academic standards shall include, but not be limited to, classroom civility, 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 for one class session, and report it to the Student Judicial Officer. Should such disorderly or disruptive conduct persist, the instructor should report the matter to Auraria Campus Police, the Student Judicial Officer, and the appropriate Department Chair and 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 Misconduct

Academic dishonesty or misconduct is a serious offense at the College because it diminishes the quality of scholarship and the learning experience for everyone on campus. In order to encourage and foster academic excellence, the College expects students to conduct themselves in accordance with certain generally accepted norms of scholarship and professional behavior. Because of this expectation, the College does not condone any form of academic misconduct.

Academic misconduct includes, but is not limited to, plagiarism, cheating, fabrication, multiple submissions, collaboration, or facilitation of academic dishonesty, or knowingly or recklessly furnishing false information to the College. Academic misconduct is an unacceptable activity in scholarship, and is in conflict with academic and

professional ethics and morals. Consequently, students who are found to have engaged in some form of academic misconduct may be subject to:

1. Reduction in grade, including a zero or an "F" or permanent "F" on the work in question.
2. Other academic penalties as outlined in the professor's course requirements and expectations, and/or syllabus.
3. Disciplinary action and/or other sanctions that will be determined on the basis of the seriousness of the offense.
4. Any combination thereof.

Generally, a student's intentions will not be the primary consideration in the determination of whether academic misconduct has occurred. A student's intentions will usually be considered only during the process of deciding on the appropriate sanctions or penalties.

Definitions of academic misconduct include, but are not limited to:

Plagiarism is the act of appropriating another's work. This includes, but is not limited to the following:

1. The written, artistic, or musical composition of another; or the ideas, language, or symbols of same and passing them off as the product of one's own work.
2. The lifting of a substantial or essential portion of another's work.
3. The unacknowledged use of materials prepared by another person or agency, including web sites, that may or may not be engaged in the selling of term papers or other academic material.

Cheating is the act of using or attempting to use, in examination or other academic work or material, information, or study aids which are not permitted by the instructor. Cheating includes, but is not limited to:

1. Using books, notes, or calculators, or copying from or conversing with others during an examination.
2. Having someone else do research, write papers, or take examinations.
3. Doing research, writing papers, or taking examinations for someone else.
4. Possession, use or distribution of tests or other academic material belonging to a member of the college faculty, staff or other students.

Fabrication is the invention or falsification of material or its source and its use as an authority in academic work. Fabrication includes, but is not limited to:

1. Inventing the data for a scientific experiment.
2. Inventing the title and author of a publication in order to use the invented publication as a source.
3. Knowingly attributing material to an incorrect source.

Academic Dishonesty Procedures, Student Conduct Code, and Judicial Process

Refer to the most current *Student Handbook* in the Office of Student Life for complete information. You may also access it via the web at: http://www.mscd.edu/~themet/Handbook02_03/standards.html#standards1.

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 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 Students 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 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 on MSCD's website (<http://www.mscd.edu>).

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 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.

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, PO Box 173362, Denver, CO 80217-3362, 303-556-8514; Mr. Kelly Espinoza, Student ADA Coordinator, MSCD, Campus Box 23, PO Box 173362, Denver, CO 80217-3362, 303-556-2761; Ms. Lisa McGill, Director Disability Services Office, Campus Box 001,

PO Box 173361, Denver, CO 80217-3361, 303-556-8387. Otherwise, all inquiries may be referred to the Office for Civil Rights, US 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, US 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, PO 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.

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 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

Graduation Rate

This report was prepared by the Office of Institutional Research at Metropolitan State College of Denver to comply with the federal Student Right-to-Know and Campus Security Act of 1990. Our latest six-year graduation rate, for the 1996 cohort of first-time, full-time students is 20.8%

Campus Crime Information

During 1999, 2000 and 2001, 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:

Criminal Offenses+	On Campus			Non-Campus			Public Property		
	1999	2000	2001	1999	2000	2001	1999	2000	2001

2003-2004 College Catalog

Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	1	0	0
Forcible Sex Offenses (incl. forcible rape)	1*	3***	1	0	3	1	0	0	1
Non-Forcible Sex Offenses	0	0	0	0	0	0	0	0	1
Robbery	2**	0	2**	0	0	0	4	2	2
Aggravated Assault	2	3	1	0	9	7	5	5	2
Burglary	11	3	9	5	1	2	2	2	3
Motor Vehicle Theft	13	9	5	3	1	0	5	7	9
Arson	3	0	0	0	0	0	1	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0

*Forcible fondling

**One offense, two victims; business and individual

***Forcible rape-one attempted-2 completed

Hate Offenses+	On Campus			Non-Campus			Public Property		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	0	0	0
Aggravated Assault	0	0	0	0	0	0	0	0	0
All Forcible Sex Offenses (incl. forcible rape)	0	0	0	0	0	0	0	0	0
Forcible Rape	0	0	0	0	0	0	0	0	0
Arson	0	0	0	0	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0
Simple Assault	0	0	0	0	1	0	0	0	0

Arrests+	On Campus			Non-Campus			Public Property		
	1999	2000	2001	1999	2000	2001	1999	2000	2001
Liquor Law Violations	3	2	1	1	0	0	17	27	16
Drug Law Violations	47	28	21	1	5	0	20	18	6
Illegal Weapons Possessions	2	5	1	1	0	0	7	7	0

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.

Students may declare a major in the School of Business during the admission process, or at any time thereafter by contacting a department faculty advisor and completing the "Major Declaration Form". Students are encouraged to declare as early as possible to ensure accurate advising on degree program requirements.

The school offers 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 70 full-time faculty, more than 50 part-time faculty and 11 full-time staff. Over 3600 students major in business and economics. Students can take advantage of on-the-job training through cooperative education placements, internships and independent study course work.

Mission

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 student population with diverse educational needs 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 provides services to the institution, the professions, and the community at large.

A secondary purpose of the School of Business is to provide outreach programs and partnerships with the external community.

Bachelor of Science Degree

[Accounting](#)

2003-2004 College Catalog

[Computer Information Systems](#)

[Finance](#) (General Finance, Financial Services, Real Estate)

[Management](#)

[Marketing](#)

Bachelor of Arts Degree

[Economics](#)

Concentration for Business Majors

[International Business](#)

Minors

[Accounting](#)

[Computer Information Systems](#)

[Economics](#)

[General Finance](#)

[General Business](#)

[Financial Services](#)

[International Business](#)

[Management](#)

[Marketing](#)

Certificate Programs for Credit

[Database Analyst](#)

[End User Support Specialist](#)

[Network Specialist in Information Systems](#)

[Personal Financial Planning](#)

[Programmer/Analyst in Information Systems](#)

Web Developer in Information Systems

Non-Credit Certificates

[Financial Planning](#)

[International Trade](#)

Other Program Offerings

[Business Outreach](#)

[Small Business Institute](#)

Colorado Family Business Center

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](#)

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

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

Management: 303-556-3247

Marketing: 303-556-3182

Business Outreach: 303-592-5364

Colorado Family Business Center: 303-556-5174

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. 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.

Colorado Family Business Center

The Colorado Family Business Center is a non-credit professional program of the School of Business. The Center serves family members who own or work in their family's business. The Center's goal is to help family-owned businesses to thrive across generations. In a participatory and non-commercial environment, the Center provides the specific information and resources family businesses need to succeed. Contact the CFBC Executive Director at 303-556-5174.

School of Business Prerequisite and Attendance Policy

All students are expected to know and fulfill all current prerequisite requirements. The School of Business reserves the right to disenroll students who do not meet current prerequisite requirements or who fail to meet expected course attendance policies. (See Class Attendance Section.) In addition to meeting specific course prerequisites, the following general requirements also apply:

Prior to attending an upper-division course offered in the School of Business Bachelor of Science programs (Accounting, Computer Information Systems, Finance, Management, Marketing), all students must have:

- completed all Level I General Studies requirements;
- completed at least 60 credit hours overall (junior standing);
- declared a major in any discipline or non-degree seeking status

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

2003-2004 College Catalog

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 course work in general studies, the core business disciplines and requirements, a major, and electives. A minor is not required.

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 course work 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 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 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, the business core course requirements, and the School of Business requirements described in the following four sections. For programs leading to a bachelor of science degree, the basic structure of each program is:

General Studies (Level I and Level II)	34
Business Core	33
School of Business requirement.....	9
Major in School of Business.....	24
Electives*.....	20
<i>Total Hours (minimum)</i>	120

** 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.

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

2003-2004 College Catalog

General Studies Level I

Composition

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

Mathematics

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

PSY 1001 Introductory Psychology -or- SOC 1010 Introduction to Sociology.....	3
PSC 1010 American National Government -or- PSC 1020 Political Systems and Ideas.....	3

Natural Sciences

(Check General Studies guide for Level II Natural Sciences elective).....	6
<i>Total of Required and Elective General Studies</i>	<i>34</i>

Business Core

All business majors require foundation course work 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. A grade of "C" or better must be earned in each business core course to have that course count toward the bachelor of science degree in a business program.

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
CMS 3340 Advanced Business Statistics.....	3

2003-2004 College Catalog

FIN 3300 Managerial Finance.....	3
MGT 2210 Legal Environment of Business I.....	3
MGT 3000 Organizational Management.....	3
MGT 4950 Strategic Management.....	3
MKT 2040 Managerial Communications.....	3
MKT 3000 Principles of Marketing.....	3
<i>Total Hours Required in Business Core.....</i>	<i>33</i>

School of Business Requirements

Required Courses.....	Semester Hours
ECO 2010 Principles of Economics-Macro.....	3
ECO 2020 Principles of Economics-Micro.....	3
MTH 1320 Calculus for the Management and Social Sciences.....	3
Total Hours for School of Business Requirement.....	9

Elective Requirements

Each business program major must take 20 credit hours of electives that meet the following:

- no more than 9 credit hours of business course work may be counted toward this requirement.
- ACC 1010, CMS 1010, and FIN 2250 may not be applied toward satisfying this elective requirement.
- At least 11 hours of the 20 hours of electives must be in non-business programs.

Students majoring in business and interested in pursuing an International Business concentration should see an advisor.

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.

Successful accounting students possess these skills and attributes:

2003-2004 College Catalog

- 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>	15

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>	24

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

General Studies (Level I and Level II) (see page 87)	34
Business Core (see page 87)	33
School of Business requirement (see page 88)	9
Major in Accounting	24
Electives (see page 88)	20
Total Hours (minimum)	120

Students interested in becoming Certified Public Accountants should be aware that the majority of states (Colorado not included) require 150 semester hours of education to sit for the uniform CPA examination. MSCD offers classes that satisfy both the 150-hour requirement and Colorado's "education in lieu of experience" option for certification.

To earn a Bachelor's degree in accounting, a student must successfully complete 30 or more credit hours of business course work 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.

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 certificate programs in information systems. We offer service courses in information systems and quantitative methods 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 activities that enhances instruction and contribute to scholarship and applied research. We provide service to the institution, the profession and the community at large.

Successful students in the Computer Information Systems program will be able to demonstrate skills and competencies in the following areas:

- Computer Information Systems theory and concepts and their application to the functional areas of business;
- problem solving in business organizations;
- Computer Information Systems development methodologies, techniques, and technologies;
- digital computer hardware, systems software, application software, peripheral equipment, network components/installation, and systems configurations;
- decision making by thinking logically and thoroughly;
- teamwork, organization, and management in information systems projects;
- Computer Information Systems ethics, the impact of information systems on society, organizations, and individuals in both the domestic and international arenas;
- oral and written communication using current technology in a multi-cultural setting.

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

Computer Information Systems Major for Bachelor of Science

All Computer Information Systems majors are required to satisfy the School of Business bachelor of science program requirements as well as the following.

Required Courses.....Semester Hours

CMS 2110 Business Problem Solving: A	
Structured Programming Approach.....	3
CMS 3060 Database Management Systems.....	3
CMS 3230 Telecommunications Systems	3

2003-2004 College Catalog

Programming Language Group

(includes CMS 3130, CMS 3145,
CMS 3180, CMS 3190, and CMS 3260).....3
CMS 4050 Systems Analysis and Design3

Computer Information Systems Capstone Group

(includes CMS 4060, CMS 4280 and CMS 4410).....3
Upper-division CMS Electives6
*Total Hours Required for Computer Information
Systems Major*24

General Studies (Level I and Level II) (see page 87)..34
Business Core (see page 87).....33
School of Business requirement (see page 88).....9
Major in Computer Information Systems.....24
Electives (see page 88).....20
Total Hours (minimum).....120

To earn a Bachelor's degree in computer information systems, a student must successfully complete 30 or more credit hours of business course work 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:

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

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
Platforms3
CMS 3230 Telecommunication Systems3
CMS 3280 LAN and WAN Systems for Business3
CMS 3290 Micro User Operating Systems3
CMS 4280 Network Installation and Administration3

**This certificate has prerequisite courses of CMS 2010 and CMS 2110 which may be waived with appropriate work experience or course work.*

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 3050 Fundamentals of Systems Analysis and Design
-or-
CMS 4050 Systems Analysis and Design**.....3
CMS 3060 Database Management Systems.....3

2003-2004 College Catalog

Three courses from the following courses.....9
CMS 3030 Business Web Page Development
CMS 3130 Business Applications in C and UNIX
CMS 3145 Business Application Development with Visual Basic
CMS 3180 Business Applications in OOP: C++
CMS 3190 Business Application and Web Applet Design with Java
CMS 3260 Systems Development with GUI Development Tools

**This certificate has prerequisite courses of CMS 2010 and CMS 2110 which may be waived with appropriate work experience or course work.*

***CMS 4050 has a prerequisite course of CMS 3230.*

DATABASE ANALYST*

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

CMS 2110 Business Problem Solving: A Structured
Programming Approach3
Any course from the CMS Programming Language Group:.....3

CMS 3130 Business Applications in C and UNIX
CMS 3145 Business Application Development with Visual Basic
CMS 3180 Business Applications in OOP: C++
CMS 3190 Business Application and Web Applet Design with Java
CMS 3260 Systems Development with GUI Development Tools

CMS 3060 Database Management Systems.....3
CMS 4060 Advanced Database Management Systems.....3
CMS 4260 Database Administration.....3

**This certificate has a prerequisite course of CMS 2010 which may be waived with appropriate work experience or course work.*

END 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 2110 Business Problem Solving: A Structured Programming
Approach.....3
CMS 3030 Business Web Page Development.....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

**This certificate has a prerequisite course of CMS 2010 which may be waived with appropriate work experience or course work.*

WEB DEVELOPER IN INFORMATION SYSTEMS*

This certificate will prepare a student to design and develop Web pages, to use an appropriate scripting language to generate dynamic Web content, to integrate Web solutions into the organization's information system, and to design and perform Web site administration tasks.

CMS 3030 Business Web Page Development.....3
CMS 3060 Database Management Systems.....3

2003-2004 College Catalog

CMS 3145 Business Application Development with Visual Basic
-or-

CMS 3190 Business Application and Web Applet

Design with Java.....3

CMS 3230 Telecommunication Systems.....3

CMS 4030 Web Site Administration.....3

**This certificate has prerequisite courses of CMS 2010 and CMS 2110 which may be waived with appropriate work experience or course work.*

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. ([See 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, personal financial planning 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 and financial data
- sound decision-making abilities
- aptitude for detail and accuracy
- 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

Each Finance major must pursue a concentration depending on their interest within the Finance area.

Finance Common Core:

Required Courses	Semester Hours
FIN 3010 Financial Markets and Institutions	3
FIN 3600 Investments	3
FIN 3850 Intermediate Finance	3
<i>Subtotal</i>	9

General Finance Concentration

Required Courses	Semester Hours
Finance Common Core	9
FIN 4950 Financial Strategies and Policies	3
<i>Subtotal</i>	12
Approved Electives*	12
<i>Total Hours Required for Finance Major with General Finance Concentration**</i>	24

**Upper-division finance electives (three credits 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.*

Students must select four (4) finance elective courses in consultation with their Finance Department advisor. Students should consult with their department advisor regarding the possibility of selecting three (3) business courses among the 20 credit hours of general electives.

Suggested Finance Electives:

FIN 3100 International Money and Finance	3
FIN 3150 Personal Financial Planning	3
FIN 3320 Entrepreneurial Finance	3
FIN 4200 Financial Modeling with Spreadsheets	3
FIN 4500 Analysis of Financial Statements	3
FIN 4650 Small Business Consulting	3

Financial Services Concentration

Required Courses	Semester Hours
Finance Common Core	9
FIN 3150 Personal Financial Planning	3
FIN 4600 Security Analysis and Portfolio Management	3
<i>Subtotal</i>	15
Approved Electives*	9
<i>Total Hours Required for Finance Major with a Financial Services Concentration**</i>	24

**Upper-division finance electives (three credit hours 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.*

2003-2004 College Catalog

Students must select three (3) finance elective courses in consultation with their Finance Department advisor. Students should consult with their department advisor regarding the possibility of selecting three (3) business courses among the 20 credit hours of general electives.

Suggested Finance Electives:

FIN 3100 International Money and Finance.....	3
FIN 3320 Entrepreneurial Finance.....	3
FIN 3420 Principles of Insurance.....	3
FIN 3430 Property and Liability Insurance.....	3
FIN 3450 Retirement Planning and Employee Benefits.....	3
FIN 4200 Financial Modeling with Spreadsheets.....	3
FIN 4400 Estate Planning.....	3
FIN 4500 Analysis of Financial Statements.....	3

Real Estate Concentration

Required Courses	Semester Hours
Finance Common Core.....	9
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
Subtotal.....	18
Approved Electives*.....	6
Total Hours Required for Finance Major with a Real Estate Concentration**.....	24

**Upper-division finance electives (three credit hours 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.*

Students must select two (2) finance elective courses in consultation with their Finance Department advisor. Students should consult with their department advisor regarding the possibility of selecting three (3) business courses among the 20 credit hours of general electives

Suggested Finance Electives:

FIN 3150 Personal Financial Planning.....	3
FIN 3320 Entrepreneurial Finance.....	3
FIN 3420 Principles of Insurance.....	3
FIN 3430 Property and Liability Insurance.....	3
FIN 4200 Financial Modeling with Spreadsheets.....	3
FIN 4500 Analysis of Financial Statements.....	3
FIN 4650 Small Business Consulting.....	3
FIN 4840 Real Estate Appraisal.....	3
FIN 4850 Commercial and Investment Real Estate.....	3
General Studies (Level I and Level II) (see page 87).....	34
Business Core (see page 87).....	33
School of Business requirement (see page 88).....	9
Major in Finance.....	24
Electives (see page 88).....	20
Total Hours (minimum).....	120

To earn a Bachelor's degree in finance, a student must successfully complete 30 or more credit hours of business course work 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:

Students must complete each course in the certificate program with a grade of “C” or better. The courses cannot be taken pass/fail.

PERSONAL FINANCIAL PLANNING

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

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

Noncredit FINANCIAL PLANNING

FPI Financial Planning Fundamentals
FPII Understanding Risk and Insurance
FPIII Investment Alternatives
FPIV Effective Tax Planning
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 the Finance Department, 303-556-6998 or 303-556-3776.

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:

2003-2004 College Catalog

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

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

General Studies (Level I and Level II) (see page 87)	34
Business Core (see page 87)	33
School of Business requirement (see page 88)	9
Major in Management	24
Electives (see page 88)	20
<i>Total Hours (minimum)</i>	120

To earn a Bachelor's degree in management, a student must successfully complete 30 or more credit hours of business course work 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.

Our mission is to:

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.

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 in the future. 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.*

General Studies (Level I and Level II) (see page 87)...	34
Business Core (see page 87).....	33
School of Business requirement (see page 88).....	9
Major in Marketing.....	24
Electives (see page 88).....	20
<i>Total Hours (minimum).....</i>	<i>120</i>

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 IBC 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 IBC 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

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

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

-or-

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

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

⁽¹⁾*fulfills the multicultural requirement*

⁽²⁾*prerequisite: ANT 1310*

⁽³⁾*prerequisite: PSC 3030*

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

(5)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.

Economics Degree Program Bachelor of Arts

The Department of Economics is a non-business degree program housed in the School of Business offering a traditional bachelor 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.

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	

2003-2004 College Catalog

(Senior Experience)	3
<i>Subtotal</i>	18
Approved Electives (upper division economics courses) ..	18
<i>Total Hours of Economics required for</i> <i>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</i> <i>of Arts in Economics</i>	120

**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>	18

**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.....	3
CMS 3060 Database Management Systems.....	3
CMS Upper Division Electives*	9
<i>Total Hours Required for Computer Information Systems Minor</i>	<i>18</i>

**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

General Finance Minor

This minor offers a broad-based education in general finance. A particular field may be emphasized within this discipline, such as personal financial planning, investments, managerial finance, financial institutions, or international finance. A student desiring a strong emphasis should also consider the financial services minor.

For the general 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 General 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.*

Financial Services Minor

This minor offers a focused education in financial services area emphasizing a particular field within this discipline, such as personal financial planning, investments and financial institutions.

2003-2004 College Catalog

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 2250 Personal Money Management.....	3
-or-	
FIN 3150 Personal Financial Planning.....	3
FIN 3010 Financial Markets and Institutions.....	3
FIN 3450 Retirement Planning and Employee Benefits.....	3
Upper-division electives*.....	9
<i>Total Hours Required for Financial Services Minor*</i>	18
Suggested Finance Electives:	
FIN 3320 Entrepreneurial Finance.....	3
FIN 3420 Principles of Insurance.....	3
FIN 3600 Investments**.....	3
FIN 3800 Real Estate Practice and Law.....	3
FIN 4400 Estate Planning.....	3
FIN 4600 Security Analysis and Portfolio Management**.....	3

**Students should select three (3) elective courses in consultation with their Finance Department advisor.*

***FIN 3600 has a prerequisite of FIN 3300; FIN 4600 has FIN 3600 as a prerequisite.*

General Business Minor

Students minoring in general business must take ECO 2010, ECO 2020, and MTH 1310. 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.....	4
MTH 1320 Calculus 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. Contact the School of Business Dean's Office for obtaining an advisor.

2003-2004 College Catalog

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:

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

Choose at least 6 hours from:

ECO 3550 Global Economics and International Trade.....	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

Choose 3 hours from:

MGT 2210 Legal Environment of Business I.....	3
MGT 2500 Small Business Management.....	3
MGT 3020 Fundamentals of Entrepreneurship.....	3
MGT 4000 Management Decision Analysis.....	3
MGT 4610 Labor/Employee Relations.....	3
MGT 4620 Appraisal and Compensation.....	3
MGT 4640 Employee Training Development.....	3
MGT 4830 Workforce Diversity*.....	3
<i>Total Hours Required for Management Minor</i>	18

**This course has been approved as a Multicultural and Senior Experience course.*

It is recommended that in order to achieve a broader understanding of business, non-business major students minoring in management should consider taking as general electives MGT 1000 (Introduction of Business) and/or ACC 1010 (Accounting for Non-Business Majors).

Marketing Minor

2003-2004 College Catalog

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

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

School of Letters, Arts and Sciences

[African American Studies](#)

[Anthropology](#)

[Art](#)

[Behavioral Science](#)

[Biology](#)

[Chemistry](#)

[Chicana/o Studies](#)

[Computer Science](#)

[Earth and Atmospheric Sciences](#)

[English](#)

[Environmental Science](#)

[History](#)

[Human Development](#)

[Journalism](#)

[Land Use](#)

[Mathematical & Computer Sciences](#)

[Meteorology](#)

[Modern Languages](#)

[Music](#)

[Native American Studies](#)

[Philosophy](#)

[Physics](#)

[Political Science](#)

[Psychology](#)

[Social Work](#)

[Sociology](#)

[Speech Communication](#)

[Theatre](#)

[Women's Studies](#)

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 19 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, 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

2003-2004 College Catalog

potential for social change. The courses may apply in the General Studies requirements and as electives for graduation.

The major in African American Studies, which leads to a bachelor of arts degree, and the minor program must be planned in consultation with the chair of the African American Studies Department. Before declaring African American Studies as a major, the student must consult with the African American Studies Department chair.

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 Group Prejudice (CHS/PSY/WMS 3700)	3
AAS 4850 Research Seminar in African American Studies	3
<i>Subtotal</i>	18

Select one from the following:

AAS 3041 African Art: The Niger to the Atlas Mountains (ART 3041).....	3
AAS 3042 African Art: The Nile to the Cape (ART 3042).....	3
AAS 3043 5000 Years of Egyptian Art (ART 3043).....	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

Department of Sociology and Anthropology

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,

2003-2004 College Catalog

anthropology can be applied to assist our understanding of human differences. Contact the Sociology and Anthropology Department for information.

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.

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 concentrations of art education, ceramics, communication design, computer imaging, drawing, jewelry design and metalsmithing, painting, photography, printmaking, or sculpture leading to the Bachelor of Fine Arts degree. The Bachelor of Arts degree is offered in art with a concentration in art history. Coursework leading to licensure in art education is available to those with an existing bachelor's degree.

Goals

Undergraduate studies in art 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
- 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
- demonstrate the way art reflects cultural values
- evaluate developments in the history of art
- understand and evaluate contemporary thinking about art
- make valid assessments of quality in design projects and works of art

Art Major for Bachelor of Fine Arts

Studio Art Concentrations

Foundation Requirements for All Art Majors.....	Semester Hours
ART 1100 Basic Drawing I.....	3
ART 1110 Basic Drawing II	
-or-	
ART 1180 Introduction to Computers in Art	
-or-	
IND 1470 Perspective Drawing.....	3
(see below for the correct choice for your concentration)	
ART 1200 Design Processes and Concepts I.....	3
ART 1210 Design Processes and Concepts II.....	3
ART 2001 World Art I: Art before 1200.....	3
ART 2002 World Art II: Art since 1200.....	3
<i>Total, Foundation Requirements.....</i>	<i>18</i>

Foundation courses must be completed before beginning courses within the studio concentration.

Also required for **all** studio art majors:

ART 3011 Art of the 20th and 21st Centuries	
-or-	
ART 3012 A Retrospective View of Modern Art.....	3
ART 3XXX Upper Division Art History/ Art Theory Elective (see advisor).....	3
ART 4010 Modern Art History: Theory and Criticism (senior experience).....	3
ART 4750 Senior Experience Studio: Portfolio Development and Thesis Exhibit (senior experience)	
-or-	
ART 4751 Communication Design Senior Experience: Portfolio Development.....	3
<i>Total.....</i>	<i>12</i>

Students must choose one of the following areas of concentration: ceramics, communication design, computer imaging, drawing, jewelry design and metalsmithing, painting, photography, printmaking, or sculpture.

Please see the sections below for concentration-specific requirements.

<i>Courses for the Concentration.....</i>	<i>48</i>
<i>Total for the Major.....</i>	<i>78</i>
General Studies.....	33
Electives.....	9
<i>Total for the Degree.....</i>	<i>120</i>

A minimum of 33 upper-division art hours required, 40 upper-division hours total for the degree.

A minor is optional for art majors.

ART 3090 may be taken for the multicultural requirement. It is required for some concentrations.

Ceramics Concentration

2003-2004 College Catalog

Ceramics students must take ART 1110 Basic Drawing II as part of their foundation coursework. They may apply IND 1470 Perspective Drawing to their art electives.

The following courses are required for the concentration:..Semester Hours

ART 2300 Beginning Sculpture.....	3
ART 2600 Beginning Ceramics.....	3
ART 3300 Intermediate Sculpture.....	3
ART 3440 Color Theory and Practice.....	3
ART 3600 Intermediate Ceramics.....	3
ART 3610 Mold Making Workshop.....	3
ART 4600 Advanced Ceramics I.....	3
ART 4610 Advanced Ceramics II.....	3
ART 4620 Advanced Ceramics III.....	3
ART 4740 Low Fire Ceramic Workshop.....	3
<i>Total.....</i>	<i>30</i>
Choose 18 hours art electives.....	18
<i>Total for the Concentration.....</i>	<i>48</i>

Communication Design Concentration

Communication Design students must take ART 1180 Introduction to Computers in Art as a foundation course.

The following courses are required for the concentration:..Semester Hours

ART 2180 Beginning Computer Imaging I.....	3
ART 2190 Beginning Computer Imaging II.....	3
ART 2400 Typography I.....	3
ART 2200 Beginning Photography	
-or-	
ART 3340 Illustration I.....	3
ART 3078 History of Communication Design.....	3
ART 3350 Typography II.....	3
ART 3400 Identity & Systems Design.....	3
ART 3440 Color Theory and Practice.....	3
ART 4400 Publication & Book Design.....	3
ART 4430 Dimensional Design	
-or-	
ART 4440 Concepts in Motion.....	3
ART 4490 Communication Design Internship.....	3
GRD 206 Graphic Design Production and Pre-Press I (CCD).....	3
<i>Total.....</i>	<i>36</i>
Choose 12 hours art electives.....	12

It is recommended that the student take a sequence of three courses in computer imaging, photography or printmaking as part of the electives.

Total for the Concentration.....48

Computer Imaging Concentration

Computer Imaging students must take ART 1180 Introduction to Computers in Art as a foundation course.

The following courses are required for the concentration:..Semester Hours

ART 2180 Beginning Computer Imaging I.....	3
ART 2190 Beginning Computer Imaging II.....	3
ART 3077 Understanding Visual Language.....	3
ART 3410 Digital Video Art.....	3
ART 3440 Color Theory and Practice.....	3
ART 4190 Interactive Multimedia Art.....	3
ART 4510 Advanced Computer Imaging.....	3
ART 4843 Directed Studies in Computer Imaging.....	3
<i>Total.....</i>	<i>24</i>

2003-2004 College Catalog

Choose a sequence of three courses from any other
studio concentration.....9
Choose 15 hours art electives.....15

Computer imaging students may apply COM 3680 Internet Document Design for Technical Communicators
to the art elective requirement. Recommended: ART 3980 Cooperative Education Internship.

Total for the Concentration.....48

Drawing Concentration

Drawing students must take ART 1110 Basic Drawing II as a foundation course.

Choose 18 hours from:

ART 2100 Beginning Life Drawing.....3
ART 3100 Intermediate Drawing.....3
ART 3140 Drawing the Human Head.....3
ART 3170 Intermediate Life Drawing.....3
ART 4090 Advanced Life Drawing.....3
ART 4100 Advanced Drawing I.....3
ART 4110 Advanced Drawing II.....3
ART 4120 Advanced Drawing III.....3
Total.....18
Choose 15 hours from painting and printmaking.....15

Choose 15 hours from art electives.....15
(At least 3 hours from sculpture, ceramics or jewelry/metalsmithing)
Total for the Concentration.....48

Jewelry Design and Metalsmithing Concentration

Jewelry Design and Metalsmithing students must take IND 1470 Perspective Drawing as part of their foundation
coursework.

The following courses are required for the concentration:..Semester Hours

ART 2300 Beginning Sculpture.....3
ART 2650 Beginning Metalwork and Jewelry Making.....3
ART 3310 Functional Sculpture.....3
ART 3440 Color Theory and Practice.....3
ART 3650 Intermediate Metalwork and Jewelry Making.....3
ART 4650 Advanced Metalwork and Jewelry Making I.....3
ART 4660 Advanced Metalwork and Jewelry Making II.....3
ART 4670 Advanced Metalwork and Jewelry Making III.....3
ART 4845 Directed Studies in Jewelry and Metal.....3
Total.....27

Choose 6 hours from:

ART 2600 Beginning Ceramics.....3
ART 3300 Intermediate Sculpture.....3
ART 3320 Glassworking.....3
ART 3840 Directed Studio Projects I.....1-4
IND 1200 Introduction to General Metals: Cold Metals.....2
IND 1220 Introduction to General Metals: Hot Metals.....2
Total.....6
Choose 15 hours art electives.....15
Total for the Concentration.....48

Painting Concentration

Painting students must take ART 1110 Basic Drawing II as a foundation course.

The following courses are required for the concentration:..Semester Hours

2003-2004 College Catalog

ART 2150 Beginning Painting.....	3
ART 3150 Intermediate Painting.....	3
ART 3440 Color Theory and Practice.....	3
ART 4150 Advanced Painting I.....	3
ART 4160 Advanced Painting II.....	3
ART 4170 Advanced Painting III.....	3
<i>Total</i>	18

Choose 15 hours from drawing, life drawing, figure painting, printmaking and watermedia.....	15
Choose 15 hours art electives.....	15
<i>Total for the Concentration</i>	48

Photography Concentration

Photography students must take ART 1180 Introduction to Computers in Art as a foundation course.

The following courses are required for the concentration:..Semester Hours

ART 2200 Beginning Photography.....	3
ART 2180 Beginning Computer Imaging I.....	3
ART 3070 History of Photography.....	3
ART 3090 Art and Cultural Heritage.....	3
ART 3200 Intermediate Photography.....	3
ART 3440 Color Theory and Practice.....	3
ART 4200 Advanced Photography I.....	3
ART 4210 Advanced Photography II.....	3
ART 4220 Advanced Photography III.....	3
<i>Total</i>	27

Choose a sequence of three courses from any other studio concentration.....	9
Choose 12 hours art electives.....	12
Suggestions: ART 3980 Cooperative Education Internship, ART 3290 Photojournalism I, ART 4290 Photojournalism II, ART 4240 Photography Assistantship.	
<i>Total for the Concentration</i>	48

Printmaking Concentration

Printmaking students must take both ART 1110 Basic Drawing II and ART 1180 Introduction to Computers in Art.
ART 1180 will be counted in the concentration.

The following courses are required for the concentration:..Semester Hours

ART 1180 Introduction to Computers in Art.....	3
ART 2180 Beginning Computer Imaging I.....	3
ART 2250 Beginning Printmaking.....	3

Select 2 courses (6 hours) from:

ART 3250 Intermediate Printmaking (Lithography)	
ART 3260 Intermediate Printmaking (Intaglio)	
ART 3270 Intermediate Printmaking (Silkscreen).....	6
ART 3440 Color Theory and Practice.....	3

Select 2 courses (6 hours) of upper division drawing courses.....	6
ART 4250 Advanced Printmaking I.....	3
ART 4260 Advanced Printmaking II.....	3
ART 4270 Advanced Printmaking III.....	3
<i>Total</i>	33

2003-2004 College Catalog

Choose:

1 course (3 hours) in ceramics, jewelry/metalsmithing or sculpture.	3
12 hours art electives.....	12
<i>Total for the Concentration.....</i>	<i>48</i>

Sculpture Concentration

Sculpture students may take either ART 1110 Basic Drawing II or IND 1470 Perspective Drawing as a foundation course. Students may also take ART 1180 Introduction to Computers in Art which will be counted in the concentration.

The following courses are required for the concentration:..Semester Hours

ART 1180 Introduction to Computers in Art.....	3
ART 2300 Beginning Sculpture.....	3
ART 2600 Beginning Ceramics.....	3
ART 2650 Beginning Metalwork and Jewelry Making.....	3
ART 3300 Intermediate Sculpture.....	3
ART 3440 Color Theory and Practice.....	3
ART 4300 Advanced Sculpture I.....	3
ART 4310 Advanced Sculpture II.....	3
ART 4320 Advanced Sculpture III.....	3
<i>Total.....</i>	<i>27</i>

Choose a sequence of three courses from any other studio concentration.....9

Choose 12 hours of art electives. Recommended: Art 1300 Introduction to Woodworking ART 3310, Functional Sculpture, ART 3320 Glassworking, ART 4849 Directed Studies in Sculpture.....	12
<i>Total for the Concentration.....</i>	<i>48</i>

Art Education Concentration

Specific General Studies Requirements - see your advisor for details

EDS 3110 Processes of Education in Multicultural Urban Secondary Schools (Social Science).....	3
EDS 3200 Educational Psychology Applied to Teaching (Social Science).....	3
MTH 1610 Integrated Mathematics I (Math).....	4
SPE 1010 Public Speaking (Communication).....	3
General Studies for Art Education students.....	34

Foundation Courses

ART 1100 Basic Drawing I.....	3
ART 1180 Introduction to Computers in Art.....	3
ART 1200 Design Processes and Concepts I.....	3
ART 1210 Design Processes and Concepts II.....	3
ART 2001 World Art I: Art before 1200.....	3
ART 2002 World Art II: Art since 1200.....	3
<i>Total, Foundation Courses.....</i>	<i>18</i>

Courses for the Concentration in Art Education

ART 2150 Beginning Painting.....	3
ART 2200 Beginning Photography.....	3
ART 2250 Beginning Printmaking.....	3
ART 2300 Beginning Sculpture.....	3
ART 2600 Beginning Ceramics.....	3
ART 2650 Beginning Metalwork and Jewelry Making.....	3

2003-2004 College Catalog

ART 3011 Art of the 20th and 21st Centuries.....	3
ART 3090 Art and Cultural Heritage.....	3
ART 3380 Introduction to Art Education.....	4
ART 4010 Modern Art History: Theory and Criticism (senior experience).....	3
ART 4380 Art Methods K-12.....	4
ART 4580* Student Teaching and Seminar: Elementary K-6.....	6
ART 4590* Student Teaching and Seminar: Secondary 7-12.....	6
ART 4750 Senior Experience Studio: Portfolio Development and Thesis Exhibit (senior experience).....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools.....	2
RDG 3280 Teaching Literacy Skill Development in the Content Areas..	4
SED 3600 The Exceptional Learner in the Classroom.....	3
Emphasis area - see below.....	12 to 15
<i>Total, Art Education Concentration Courses.....</i>	<i>71 to 74</i>
<i>Total for the degree.....</i>	<i>123 to 126</i>

Choose an emphasis from those listed below:

Ceramics

ART 3600 Intermediate Ceramics.....	3
ART 4600 Advanced Ceramics I.....	3
ART 4610 Advanced Ceramics II.....	3
ART 4620 Advanced Ceramics III.....	3
<i>Total.....</i>	<i>12</i>

Computer Imaging

ART 2180 Beginning Computer Imaging I.....	3
ART 3410 Digital Video Art.....	3
ART 4190 Interactive Multimedia Art.....	3
ART 4510 Advanced Computer Imaging.....	3
ART 4843 Directed Studies in Computer Imaging.....	3
<i>Total.....</i>	<i>15</i>

Drawing

ART 1110 Basic Drawing II.....	3
ART 3100 Intermediate Drawing.....	3
ART 4100 Advanced Drawing I.....	3
ART 4110 Advanced Drawing II.....	3
ART 4120 Advanced Drawing III.....	3
<i>Total.....</i>	<i>15</i>

Jewelry Design and Metalsmithing

ART 3650 Intermediate Metalwork and Jewelry Making.....	3
ART 4650 Advanced Metalwork and Jewelry Making I.....	3
ART 4660 Advanced Metalwork and Jewelry Making II.....	3
ART 4670 Advanced Metalwork and Jewelry Making III.....	3
<i>Total.....</i>	<i>12</i>

Painting

ART 3150 Intermediate Painting.....	3
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2003-2004 College Catalog

ART 3180 Watermedia.....	3
ART 4150 Advanced Painting I.....	3
ART 4160 Advanced Painting II.....	3
ART 4170 Advanced Painting III.....	3
Total.....	15

Photography

ART 3200 Intermediate Photography.....	3
ART 4200 Advanced Photography I.....	3
ART 4210 Advanced Photography II.....	3
ART 4220 Advanced Photography III.....	3
Total.....	12

Printmaking

ART 3250 Intermediate Printmaking (Lithography)	
-or-	
ART 3260 Intermediate Printmaking (Intaglio)	
-or-	
ART 3270 Intermediate Printmaking (Silkscreen).....	3
ART 4250 Advanced Printmaking I.....	3
ART 4260 Advanced Printmaking II.....	3
ART 4270 Advanced Printmaking III.....	3
Total.....	12

Sculpture

ART 3300 Intermediate Sculpture.....	3
ART 4300 Advanced Sculpture I.....	3
ART 4310 Advanced Sculpture II.....	3
ART 4320 Advanced Sculpture III.....	3
Total.....	12

**Student teaching is composed of daily full-time work during 16 weeks, split 8 and 8 weeks between elementary and secondary levels. ART 4580 is dual-listed with EDU 4190; ART 4590 is dual-listed with EDS 4290.*

In addition to field experiences included in required course work, 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 must also achieve satisfactory scores on the state licensure examination. See your advisor for more information.

Students seeking teacher licensure should read the teacher licensure sections of this Catalog and stay in regular contact with their advisors.

Art Licensure Only: K-12

Coursework in teacher licensure is available through the Art Department. An existing BFA in a studio area is required.

Required Courses.....	Semester Hours
ART 3380 Introduction to Art Education.....	4
ART 4380 Art Methods K-12.....	4
ART 4580* Student Teaching and Seminar: Elementary K-6.....	6
ART 4590* Student Teaching and Seminar: Secondary 7-12.....	6
EDS 3110 Processes of Education in Multicultural	

2003-2004 College Catalog

Urban Secondary Schools.....	3
EDS 3120 Field Experiences in Multicultural	
Urban Secondary Schools.....	2
EDS 3200 Educational Psychology Applied to Teaching.....	3
RDG 3280 Teaching Literacy Skill Development in the Content Areas..	4
SED 3600 The Exceptional Learner in the Classroom.....	3
Total.....	35

**Student teaching is composed of daily full-time work during 16 weeks, split 8 and 8 weeks between elementary and secondary levels. ART 4580 is dual-listed with EDU 4190; ART 4590 is dual-listed with EDS 4290.*

In addition to field experiences included in required course work, 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.

Licensure students must take MTH 1610 Integrated Mathematics I and must pass a public speaking course (SPE 1010) with a grade of "B" or better or obtain a waiver. Students must also achieve satisfactory scores on the state licensure examination. See your advisor for more information.

Students seeking teaching licensure should read the teacher licensure section of this Catalog, and they should stay in regular contact with their advisors.

Art Major for Bachelor of Arts

Art History and Art Theory/Criticism Concentration

Foundation Requirements.....	Semester Hours
ART 1100 Basic Drawing I.....	3
ART 1110 Basic Drawing II	
-or-	
ART 1180 Introduction to Computers in Art.....	3
ART 1200 Design Processes and Concepts I.....	3
ART 1210 Design Processes and Concepts II.....	3
ART 2001 World Art I: Art before 1200.....	3
ART 2002 World Art II: Art since 1200.....	3
Total Foundation Requirements.....	18

Foundation courses must be completed before proceeding.

ART 2150 Beginning Painting	
-or-	
ART 2250 Beginning Printmaking	
-or-	
ART 2300 Beginning Sculpture.....	3
ART 2200 Beginning Photography	
-or-	
ART 2180 Beginning Computer Imaging I.....	3

Choose one of the following:

ART 3078 History of Communication Design	
-or-	
ART 3070 History of Photography	
-or-	
ART 3074 Contemporary Print History.....	3

2003-2004 College Catalog

ART 3011 Art of the 20th and 21st Centuries.....	3
Total.....	12

Art History and Art Theory/Criticism electives:

Choose 6 courses (18 hours) from the following. At least one course must be in art theory and criticism (see advisor for designated courses):

ART 3000 Art Nouveau	
ART 3012 A Retrospective View of Modern Art	
ART 3030 History of Art Between World Wars	
ART 3041 African Art: The Niger to the Atlas Mountains	
ART 3042 African Art: The Nile to the Cape	
ART 3043 5000 Years of Egyptian Art	
ART 3050 The Medieval Artist: Variable Topics	
ART 3060 The Renaissance Artist: Variable Topics	
ART 3080 The Baroque Artist: Variable Topics	
ART 3090 Art & Cultural Heritage*	
ART 3160 Art History: Theoretical Approaches to Art	
ART 3910 Site Specific Studies in Art History: Variable Topics	
ART 3950 Women's Art/Women's Issues	

Total, Art History and Art Theory/Criticism electives.....	18
ART 4010 Modern Art History: Theory and Criticism (senior experience).....	3
ART 4755 Exhibiting the Art Object (senior experience).....	3
Total for the major.....	54
General Studies.....	33
Two consecutive semesters of the same foreign language**.....	6-10
Electives.....	23-27
Total for the degree.....	120

A minimum of 27 upper-division art hours required. A minimum of 40 upper-division hours total are required for the degree.

**ART 3090 may be taken for the multicultural requirement.*

***Students who entered college with fluency in a language (or languages) other than English are encouraged to study a language with which they are unfamiliar. Students with a good high school background in a foreign language may take intermediate or advanced courses in that language, or study a new language. The second semester of certain foreign languages may be applied to the general studies requirement.*

Note: four semesters of French or German are required for entrance into most graduate programs in art history and art theory/criticism. Both French and German are required for entrance into Ph.D. programs in art history, and doctoral research often requires research in at least one additional language.

Minors are optional for art majors.

Minor in Studio Art

Required Courses.....	Semester Hours
ART 1100 Basic Drawing I.....	3
ART 1110 Basic Drawing II	
-or-	
ART 1180 Introduction to Computers in Art.....	3
ART 1200 Design Processes and Concepts I.....	3
ART 1210 Design Processes and Concepts II.....	3

2003-2004 College Catalog

ART 2001 World Art I: Art before 1200.....	3
ART 2002 World Art II: Art since 1200.....	3
Studio Art Electives.....	9
Minimum of six upper-division art hours required	
<i>Total</i>	27

Minor in Art History and Art Theory/Criticism

Required Courses.....	Semester Hours
ART 2001 World Art I: Art before 1200.....	3
ART 2002 World Art II: Art since 1200.....	3
ART 3011 Art of the 20th and 21st Centuries	
-or-	
ART 3012 A Retrospective View of Modern Art.....	3
ART 3XXX Upper Division Art History Elective.....	3
ART 3XXX Upper Division Art Theory Elective.....	3
Art Electives.....	6
Minimum of nine upper division art hours required	
<i>Total</i>	21

Digital Media Minor

Behavioral Science Program

Department of Sociology and Anthropology

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.

The student must have preliminary approval of the selected program by an advisor from the Sociology and Anthropology 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
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.

<i>Subtotal</i>	12
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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.

2003-2004 College Catalog

<i>Subtotal</i>	12
<i>Total</i>	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 department.

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, zoology, cell and molecular biology, or human biology. 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.

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 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. Any biology course approved 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:

2003-2004 College Catalog

BIO 2100 General Botany	5
BIO 2200 General Zoology	5
BIO 2400 General Microbiology	5

Select one of the following:

BIO 3550 Urban Ecology	4
BIO 4510 Microbial Ecology.....	4
BIO 4540 Plant Ecology	4
BIO 4550 Animal Ecology	4
<i>Subtotal</i>	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.

Electives	18
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At least 21 semester hours (including genetics, ecology and 14 credits of upper-division electives) must be from the 3000- and 4000-level courses of the Biology Department.

<i>Total</i>	40
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Required Non-Biology Courses

One year of college general chemistry with lab, one semester of upper-division organic chemistry, one semester of upper-division biochemistry, and one year of mathematics starting with MTH 1110 or above, are requisites for the bachelor of science major in biology.

Biology Major for Bachelor of Arts

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	5

Select one of the following:

BIO 3550 Urban Ecology	4
BIO 4510 Microbial Ecology.....	4
BIO 4540 Plant Ecology	4
BIO 4550 Animal Ecology	4
<i>Subtotal</i>	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.

Electives	18
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At least 21 semester hours (including the genetics, ecology and 14 credits of upper-division electives) must be from the 3000- and 4000-level courses of the Biology Department.

2003-2004 College Catalog

Total40

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 3160 Plant Anatomy and Morphology	4
BIO 3180 Vascular Plant Taxonomy	4
BIO 4160 Mycology	4
BIO 4850 Evolution	3
Subtotal	15

**BIO 3050 is applicable to the fields of botany, microbiology, and zoology and is recommended as an additional elective for all three areas of concentration.*

Medical Technology 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 4440, and BIO 4450. Additional hours must be taken from the courses listed below to complete the 21 hours of upper-division courses and a total of 40 semester credit hours in biology.

Elective Courses	Semester Hours
BIO 3210 Histology	4
BIO 3270 Parasitology	4
BIO 3360 Animal Physiology	4
BIO 4160 Mycology	4
Subtotal	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 in biology 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 21 hours of upper-division courses and a total of 40 semester hours in biology.*

Elective Courses	Semester Hours
BIO 3270 Parasitology	4
BIO 4160 Mycology	4
BIO 4440 Virology	3

2003-2004 College Catalog

**BIO 3050 is applicable to the fields of botany, microbiology, and zoology and is recommended as an additional elective 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 in biology 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 3270 Parasitology	4
BIO 3340 Endocrinology	3
BIO 3360 Animal Physiology	4
BIO 4280 Ornithology	4
BIO 4810 Vertebrate Embryology	4
<i>Subtotal</i>	15

**BIO 3050 is applicable to the fields of botany, microbiology, and zoology and is recommended as an additional elective for all three concentrations.*

Cell and Molecular Concentration

Students must satisfy the requirements for a bachelor of science major in biology and must include BIO 2400, BIO 3050, and BIO 4510. This concentration requires a total of 42 semester hours of biology courses including BIO 273–*Methods in Cell Biology and Immunology* and BIO 274–*Nucleic Acid Techniques and Molecular Cloning*, which must be successfully completed at the Community College of Aurora, and at least 10 semester hours from the following list of electives:

BIO 3210 Histology.....	4
BIO 3270 Parasitology.....	4
BIO 3340 Endocrinology.....	3
BIO 3350 Immunology.....	4
BIO 4050 Advanced Cell and Molecular Biology.....	4
BIO 4400 Microbial Physiology.....	4
BIO 4440 Virology.....	3
BIO 4450 Pathogenic Microbiology.....	5
BIO 4470 Microbial Genetics.....	4
BIO 3980/4980 Internship/Independent Study.....	2
<i>Subtotal</i>	10

Required Nonbiology Courses

The student must satisfy the requirements listed for nonbiology courses for the bachelor of science major in biology and complete the requirements for a minor or second major in chemistry.

Human Biology Concentration

This is a concentration recommended for pre-health sciences careers such as pre-nursing, pre-pharmacy, pre-

2003-2004 College Catalog

physician assistant and pre-physical therapy. Students must satisfy the requirements for the bachelor of science major in biology and must include BIO 2200, 2310, 2320, 2400, and either 3550 or 4510. This concentration requires a total of 43 semester hours of biology courses with 14 semester hours from the following list of electives:

BIO 3050 Cell and Molecular Biology.....	4
BIO 3210 Histology.....	4
BIO 3270 Parasitology.....	4
BIO 3320 Advanced Human Physiology.....	4
BIO 3330 Advanced Human Cadaver Anatomy.....	4
BIO 3340 Endocrinology.....	3
BIO 3350 Immunology.....	4
BIO 3471 Biology of Women.....	3
BIO 4440 Virology.....	3
BIO 4450 Pathogenic Microbiology.....	5
BIO 4810 Vertebrate Embryology.....	4
BIO 4850 Evolution.....	3

Required Nonbiology Courses

The student must satisfy the requirements listed for nonbiology courses for the bachelor of science major in biology.

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 2310 and 2320 are considered one selection):

BIO 2100 General Botany	5
BIO 2200 General Zoology	5
BIO 2400 General Microbiology	5
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 4510 Microbial Ecology.....	4
BIO 4540 Plant Ecology	4
BIO 4550 Animal Ecology	4
<i>Subtotal</i>	18-21

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.

Total24

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

2003-2004 College Catalog

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.

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 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. The senior experience in Chemistry (CHE 4950) does not count as an elective. Students may take any senior experience approved by the college.....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

2003-2004 College Catalog

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

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 Laboratory	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, CHE 4310, CHE 4320, and CHE 4350.

<i>Total</i>	56
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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
<i>Subtotal</i>	15

Required Criminalistics Courses:

CHE 3700 Criminalistics I	4
CHE 3710 Criminalistics II	4
CHE 4700 Criminalistics Internship I	7
CHE 4710 Criminalistics Internship II	6
<i>Subtotal</i>	21

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	
-or-	

2003-2004 College Catalog

CJC 2140 Criminal Procedure.....	3
<i>Subtotal</i>	9

Required Ancillary Courses:

BIO 1080 General Introduction to Biology	3
BIO 1090 General Introduction to Biology Laboratory	1
MTH 1210 Introduction to Statistics	4
MTH 1410 Calculus I	4
PHY 2010 College Physics I	
and	
PHY 2030 College Physics I Laboratory	
-or-	
PHY 2311 General Physics I	
and	
PHY 2321 General Physics I Laboratory	5
<i>Subtotal</i>	17

Electives

A minimum of two courses:

BIO 2310 Human Anatomy and Physiology I.....	4
BIO 2400 General Microbiology.....	5
BIO 3050 Cell and Molecular Biology.....	4
BIO 3210 Histology.....	4
BIO 3600 General Genetics.....	4
<i>Subtotal</i>	8-9
<i>Total for Criminalistics Concentration</i>	96-97

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. The senior experience in Chemistry (CHE 4950) does not count as an elective. Students may take any senior experience approved by the college.

<i>Subtotal</i>	6
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Required Ancillary Courses

MTH 1410 Calculus I	4
PHY 2010 College Physics I	4
<i>Total Ancillary Courses Required</i>	8
<i>Total</i>	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.

2003-2004 College Catalog

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

Minor in Criminalistics

Required Courses	Semester Hours
CHE 1100 Principles of Chemistry	4
CHE 1150 Principles of Chemistry Laboratory.....	1
CHE 2700 Introduction to Criminalistics	4
CHE 2750 Arson and Explosives	3
CHE 2760 Field Testing and Laboratory Analysis of Drugs	1
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

Chicana and Chicano Studies Department

The Chicana and Chicano Studies Department offers a bachelor of arts degree in Chicano Studies plus a minor. The Chicana/o and other Latino historical experiences are used as points of departure toward expanding awareness of the multicultural world and the contributions of Chicanas/os. The program is designed to assist in the preparation of scholars, human service providers, and teachers.

Students have the following options for majoring in Chicano Studies: major for the bachelor of arts; and major for the bachelor of arts with teacher licensure in secondary social studies. Students can also earn a minor in Chicano Studies.

During the final semester, students majoring in Chicano Studies will be required to take a comprehensive assessment test.

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 Chicana/o Studies	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods (HIS 1910)	3
CHS 1020 History of the Chicana/o in the Southwest: 1810 to Present (HIS 1920)	3
CHS 2010 Survey of Chicana/o Literature (ENG 2410)	3
CHS 3100 The Chicana/o Community (SOC 3130)	3
CHS 4850 Research Experience in Chicana/o Studies	3
<i>Subtotal</i>	18

Language Requirements

SPA 1010 Elementary Spanish I	5
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2003-2004 College Catalog

SPA 1020 Elementary Spanish II	5
SPA 2110 Spanish Reading and Conversation I	
-or-	
SPA 2120 Spanish Reading and Conversation II.....	3
Subtotal	13
Approved Electives*.....	9
Total	40

**Nine (9) semester hours of electives in Chicana/o Studies are required and must be selected in consultation with the department chair.*

Students pursuing secondary licensure must take the required General Studies courses and the secondary education sequence. See the Department of Teacher Education for further information.

Secondary Social Studies Teacher Licensure Concentration

The Chicana/o Studies Department offers this concentration which prepares students to become social studies teachers in secondary schools. The requirements include core courses in Chicana/o Studies, a sequence in history, additional courses in social studies, General Studies requirements, and an educational licensure sequence including student teaching. Students seeking teacher licensure should stay in regular contact with the department advisor and the education advisor to assure the proper course progression.

Required Courses.....	Semester Hours
CHS 1000 Introduction to Chicana/o Studies.....	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods (HIS 1910).....	3
CHS 1020 History of the Chicana/o in the Southwest: 1810 to Present (HIS 1920).....	3
CHS 2010 Survey of Chicana/o Literature (ENG 2410).....	3
CHS 2120 Mexico: Independence to Revolution 1810-1910.....	3
CHS 3010 The Mexican Revolution (HIS 3830).....	3
CHS 3100 The Chicana/o Community (SOC 3130).....	3
CHS 3460 La Chicana.....	3
CHS 3600 Mexico and Chicana/o Politics.....	3
CHS 4850 Research Experience in Chicana/o Studies.....	3
Subtotal for Chicano Studies Major Social Studies Concentration.	30

In addition, Chicano Studies majors with Social Studies Concentration must take the following social science courses:

ANT 1310 Introduction to Cultural Anthropology.....	3
ECO 2010 Principles of Economics-Macro.....	3
ECO 3200 Economic History of the U.S	
-or-	
ECO 2020 Principles of Economics-Micro.....	3
GEG 1920 Concepts and Connections in Geography.....	3
GEG 3000 Historical Geography of the U.S.....	3
HIS 1010 Western Civilization to 1715	
-or-	
HIS 1030 World History to 1500.....	3
HIS 1040 World History since 1500.....	3
HIS 1210 American History to 1865.....	3
HIS 1220 American History since 1865.....	3
PSC 1010 American National Government.....	3
PSC 1020 Political Systems and Ideas.....	3
Total of Additional Social Science Courses.....	33 (24*)

2003-2004 College Catalog

* Six of these hours can be used to satisfy the General Studies Social Sciences requirement and three hours can be used to satisfy the General Studies Historical requirement.

Chicano Studies Major Social Studies Concentration.....	30
Additional Social Science Courses.....	24
General Studies (assuming the six hours of social science and three hours of history come from the above and assuming a 4-credit mathematics course).....	34
Licensure courses (see pages 255-268 of this <i>Catalog</i>).....	37
<i>Total for Chicano Studies Major Social Studies Concentration.</i>	<i>125</i>

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 Chicana/o 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 Chicana/o Studies	3
CHS 1010 History of Meso-America: Pre-Columbian and Colonial Periods	3
CHS 1020 History of the Chicana/o in the Southwest: 1810 to Present.....	3
CHS 2010 Survey of Chicana/o Literature	3
Electives*.....	9
<i>Total</i>	<i>21</i>

*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 Chicana/o Studies faculty advisor.

Computer Science

Department of Mathematical and Computer Sciences

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 follows the guidelines of the Computing Curricula 2001 for Computer Science, a joint undertaking of the Computer Society of the Institute for Electrical and Electronic Engineers (IEEE-CS) and the Association for Computing Machinery (ACM). 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.

2003-2004 College Catalog

CSI 1050 Computer Science 1*	4
CSI 2050 Computer Science 2	4
CSI 2400 Computer Organization and Assembly Language	4
CSI 3050 Computer Science 3	4
CSI 3210 Principles of Programming Languages	4
CSI 3240 Introduction to the Theory of Computation	2
CSI 3600 Operating Systems	4
CSI 3700 Computer Networks	4
CSI 3800 Fundamentals of Relational Database Systems	2
CSI 4050 Algorithms and Algorithm Analysis	4
CSI 4250 Software Engineering Principles	4
CSI 4260 Software Engineering Practices	4
Subtotal	44

**CSI 1050 is a required course and part of the mathematics minor.*

A minimum of 6 additional credit hours selected from upper-division CSI courses or MTH 4480	6
Subtotal for the major (including CSI 1050)	50

Required Ancillary Courses

SPE 1010 Public Speaking	3
COM 2610 Introduction to Technical Writing	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
EET 2310 Digital Circuits I	4
PHI 3370 Computers, Ethics, and Society	3
Subtotal	23

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 3100 Introduction to Mathematical Proofs	3
MTH 3210 Probability and Statistics (Calculus-based)	4
MTH 3220 Design of Experiments	4
Subtotal (not including CSI 1050, 4 hours)	21

**CSI 1050 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
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
Three additional hours from the areas of communication, historical, arts and letters, and/or social sciences	3

2003-2004 College Catalog

Unrestricted Electives.....	5
Subtotal.....	26

**These courses, along with MTH 1410, CHE 1800, 1810, 1850 or PHY 2311, 2321, 2231, 2241, PHI 3370, and SPE 1010, count as General Studies courses. The Multicultural graduation requirement of 3 credit hours must also be satisfied.*

Total.....	120
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Minor in Computer Science

A grade of "C" or better is required in each course included in the minor.

Required Courses	Semester Hours
CSI 1050 Computer Science 1	4
CSI 2050 Computer Science 2	4

Electives

A minimum of 12 semester hours chosen from CSI 2400* and upper-division CSI courses

Total	20
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**EET 2310 is a prerequisite for CSI 2400.*

CERTIFICATE PROGRAM AVAILABLE:

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

Advanced Software Engineering Techniques

This certificate will prepare students as software engineering professionals specializing in software team leadership.

Background to begin certificate: experience in software development and knowledge of the software engineering principles taught in CSI 4250.

CSI 4281 Software Requirements.....	3
CSI 4282 Software Development Management.....	3
CSI 4283 Software Testing and Quality Assurance.....	3
CSI 4284 Software Product Engineering.....	3
CSI 4285 Best Practices in Software Development.....	3
Total.....	15

Digital Media Minor – Departments of Art, Communication Arts and Sciences, and Technical Communications

The Digital Media Minor includes courses from the departments of Art, Communication Arts and Sciences, and Technical Communications. This minor consists of 24 hours, six of which must be upper division. This minor is designed to provide skills that will increase employment opportunities in the field of digital media communication. In addition to required core courses, students choose one of the following concentrations: motion media, interactive media, content design or still media. The motion media concentration deals with television and corporate video production. Students in interactive media work with computer graphics, interactive applications and web-based media production. The content design concentration focuses on the design of the message from the visual and written perspective. Still-media students explore with photography, photojournalism, and computer imaging. Courses that are recommended to fulfill the General Studies Level II Arts & Letters requirement are: ART 1040 or

2003-2004 College Catalog

ART 2040 or SPE 2850/ART 2850. Students should contact an advisor to plan a course of study for their particular minor. If you have taken any one of the required courses as part of your major, you must substitute another course(s) in the minor for it.

Required Core

Required Courses.....	Semester Hours
ART 1180 Introduction to Computers in Art.....	3
ART 1200 Design Processes and Concepts I.....	3
COM 2430 Introduction to Technical Media.....	3
JRN 1010 Introduction to Journalism and Mass Media.....	3
<i>Required Core Total.....</i>	<i>12</i>

Choose three courses from one of the four concentrations. In addition, choose one course from any of the four concentrations. Courses cannot be used to meet both the requirements of this minor and the requirements of a major in Art, Journalism, Speech or Technical Communications.

Still Media Concentration

Courses.....	Semester Hours
ART 1030 Basic Photography Methods.....	3
ART 2180 Beginning Computer Imaging I.....	3
ART 2190 Beginning Computer Imaging II.....	3
JRN 2600 Introduction to Photojournalism.....	3
JRN 3600 Photojournalism I.....	3
JRN 4600 Photojournalism II.....	3
JRN 4890 Social Documentary.....	3

Interactive Media Concentration

Courses.....	Semester Hours
ART 2180 Beginning Computer Imaging I.....	3
ART 3410 Digital Video Art.....	3
ART 4190 Interactive Multimedia Art.....	3
ART 4510 Advanced Computer Imaging.....	3
COM 2450 Basic Multimedia Production.....	3
COM 2470 Basic DVD Authoring.....	3
COM 2480 Corporate Animation.....	3
COM 3450 Intermediate Multimedia Production.....	3
COM 3460 Virtual Reality in Corporate Communications.....	3
COM 4450 Advanced Multimedia Production.....	3

Motion Media Concentration

Courses.....	Semester Hours
ART 3410 Digital Video Art (prerequisite ART 2180).....	3
COM 2400 Basic Video Editing.....	3
COM 3400 Nonlinear Video Editing.....	3
COM 4401 Advanced Nonlinear Video Editing.....	3
COM 2420 Basic Corporate Videotape Production.....	3
COM 3420 Intermediate Corporate Videotape Production.....	3
COM 4420 Advanced Videotape Production.....	3
COM 4430 Lighting and Directing for Nonbroadcast Video.....	3
SPE 3430 Radio-Television Announcing.....	3
SPE 3440 Television Production.....	3
SPE 4440 Advanced Television Production.....	3

Content Design Concentration

Courses.....	Semester Hours
COM 3440 Corporate Scriptwriting for Film and Television...	3
COM 3470 Writing for Multimedia.....	3
COM 3680 Internet Document Design for Technical Communicators.....	3
JRN 1100 Beginning Reporting.....	3
JRN 1200 Beginning Editing.....	3
SPE 4450 Broadcast Journalism: Television.....	3
Required Core Courses:.....	12
Concentration Courses.....	9
Electives.....	3
<i>Total for Minor in Digital Media</i> (6 hrs. Upper Division required).....	24

Earth and Atmospheric Sciences Department

The Earth and Atmospheric Sciences Department (EAS) is composed of three separate disciplines: geography, geology, and meteorology. The department offers degrees in environmental science, land use and meteorology, providing students with a strong background in the physical and quantitative aspects of the environment. Students will receive a bachelor of science degree except when their focused area of interest in land use is urban land use planning (bachelor of arts degree). Each student must have an EAS faculty advisor. [Visit Quick Facts at the department website (<http://www.mscd.edu/~eas/>) for specific faculty.]

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 working toward secondary science teacher licensure in environmental science must consult an EAS environmental science faculty advisor.

Environmental Science

The environmental science major is an extended major (no minor required) designed as an entry-level major for MSCD students as well as for students transferring at the junior level from the community colleges with backgrounds in hazardous materials or water quality. Students may choose from six options (concentrations) depending on their areas of interest. The multidisciplinary concentration provides students with a broad-based environmental science background, whereas the concentrations in ecological restoration, environmental chemistry, hazardous materials, and water quality are more specialized. The environmental science option for secondary science teacher licensure is the remaining concentration available to students. All concentrations, except for environmental science for teacher licensure, require a unified core. (See Environmental Science on page 131 of this *Catalog*.)

Land Use

The land use major is an extended major that combines general planning courses with a focused area of study, including environment and resources, geographic information systems, geology, or urban land use planning, linked by the vital thread of land use management. It also equips students with a dynamic foundation for understanding issues and solving problems that confront the community and environment. The program is broad in scope and can be applied to a number of career objectives and graduate school programs. Opportunities exist in such areas as cartography, environment and resource management, environmental science, geographic information systems, geology, mining and mineral resources, planning, population analysis, recreational land use, remote sensing, residential and industrial development, transportation, and a variety of other interrelated fields. (See Land Use on page 146 of this *Catalog*.)
(See [Land Use](#))

Meteorology

Meteorology is the science of the atmosphere. Meteorologists are employed in operational meteorology, meteorological research, applied meteorology, and the media. The Meteorology Computer Laboratory provides access to real-time weather data and analysis software supported by the UNIDATA Program. The bachelor of science degree conforms to the American Meteorological Society and National Weather Service recommendations for an undergraduate meteorology degree. A mathematics minor is a requirement of the meteorology major. Students should contact a meteorology faculty member to discuss degree programs, career opportunities, and graduate school options. (See Meteorology on page 156 of this *Catalog*.) (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](#)

2003-2004 College Catalog

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 Chaucer, Shakespeare, Milton	3
ENG 3440 Myth, Symbol and Allusion In Literature	3
ENG 4610 Theories and Techniques in 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: 1600 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 (English literature course with "Development" in title)	3
Period course (any 311X)	3
Major author course (ENG 413X or ENG 4310 or ENG 4320)	3
Writing course (2000-level or above)	3
Literature course	3
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.

Required CoursesSemester Hours

Literature Core Courses

ENG 2100 Introduction to Literary Studies	3
ENG 2220 American Literature: Civil War to Present	3
ENG 3100 Chaucer, Shakespeare, Milton	3
ENG 3440 Myth, Symbol and Allusion in Literature	3
ENG 3461 Children's Literature: Theory and Practice.....	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 K-6.....	3
ENG 4660 Teaching Literature and Language: K-6 (Senior Experience course)	3
RDG 3110* Foundations of Literacy Instruction in Grades P-6....	3
<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

**RDG 3110 meets part of the reading requirements for Colorado State licensure and is counted 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.

2003-2004 College Catalog

Required CoursesSemester Hours

I. Literature Core

ENG 2100 Introduction to Literary Studies3

ENG 2210 American Literature: Beginnings through the Civil War

-or-

ENG 2220 American Literature: Civil War to Present3

ENG 3100 Chaucer, Shakespeare, Milton3

ENG 3440 Myth, Symbol, and Allusion in Literature3

ENG 3470 Young Adult Literature3

Total15

II. Language Core

ENG 2010 The Nature of Language3

ENG 3020 History of the English Language3

Total6

III. Composition Core

ENG 2500 Art and Craft of Writing3

ENG 3510 Advanced Composition3

Total6

IV. Teaching English Core

ENG 4600 Teaching Literature and Communication, 7-123

ENG 4620 Teaching Composition, 7-12.....3

ENG 4640 Teaching English, 7-12 (Senior Experience course)3

Total9

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

Total45

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 CoursesSemester Hours

I. Literature Courses

Lower-Division Literature Courses 2000-level, including ENG 21009

Three hours must emphasize modern literature.

Upper-Division Literature Courses: 3000-Level and/or 4000-Level9

Semester Hours of Literature Required18

II. Language and Linguistics Course

Select one, in consultation with a faculty advisor, from the department's offerings.

Semester Hours of Language and Linguistics Required3

2003-2004 College Catalog

III. Writing Courses

Entry Course:

ENG 2500 Art and Craft of Writing	3
<i>Subtotal</i>	3

Writing Electives (In consultation with an English advisor,
select four - three must be 3000-level)

COM 2610 Introduction to Technical Writing	3
ENG 2520 Introduction to Creative 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
JRN 1100 Beginning Reporting	3
<i>Subtotal</i>	12

Specialized Writing Courses

ENG 3820 Writing Studio: Variable Topics (must be repeated for credit under two distinct titles)	6
<i>Subtotal</i>	6

Senior Experience Course

ENG 4520 Advanced Writing	3
<i>Total Semester Hours of Writing Required</i>	24
<i>Total Semester Hours Required</i>	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 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
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Upper-Division Literature Course:

3000-Level or 4000-Level	3
<i>Subtotal</i>	9

II. Language and Linguistics Course:

Select one, in consultation with a faculty advisor, from
department's offerings.

<i>Semester Hours of Language and Linguistics Required</i>	3
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III. Writing Course:

Entry Course:

ENG 2500 Art and Craft of Writing	3
<i>Subtotal</i>	3

2003-2004 College Catalog

Writing Electives (select three - two must be 3000-level)

COM 2610 Introduction to Technical Writing	3
ENG 2520 Introduction to Creative 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 3820 Writing Studio: Variable Topics.....	3
JRN 1100 Beginning Reporting	3
<i>Subtotal</i>	9
<i>Semester Hours of Writing Required</i>	12
<i>Total Semester Hours Required</i>	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
ENG 2120 World Literature: 1600 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 311X)

-or-

Any development course (English literature course with "Development" in title or ENG 3240)

<i>Subtotal</i>	3
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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
<i>Subtotal</i>	12
<i>Total Semester Hours Required</i>	24

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

2003-2004 College Catalog

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 Communications.....	3
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 Reading Disabilities	3
SPA 3150 Spanish Phonetics: Theory and Practice	3
SPA 4310 History of the Spanish Language	3
SPE 2890 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

Department of Earth and Atmospheric Sciences

The environmental science major is an extended major (no minor required) 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. In addition, students may choose from six options (concentrations) depending on their areas of interest. The multidisciplinary concentration provides students with a broad-based environmental science background, whereas the concentrations in hazardous materials, water quality, environmental chemistry, and ecological restoration are more specialized. The environmental science option for secondary science teacher licensure is the remaining concentration available to students. All concentrations, except for environmental science for teacher licensure, require a unified core. 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. Students interested in teacher licensure in secondary science should consult an advisor in environmental science and see the teacher education portion of this *Catalog*.

Environmental Science Major for Bachelor of Science

Core Requirements for Environmental Science Concentrations
(except for Secondary Science Teacher Licensure)

2003-2004 College Catalog

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
ENV 1200 Introduction to Environmental Science	3
ENV 4200 Environmental Policy and Planning	3
GEG 1220 Map Use	2
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	4
BIO 4540 Plant Ecology	4
CHE 4950 Senior Experience in Chemistry	3
ENV 4960 Global Environmental Challenges	3
ENV 4970 Environmental Field Studies	3
<i>Subtotal</i>	3

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 (see General Requirements Brochure) ..</i>	<i>36</i>

(Students who have not had a computer course will be required to take CSS 1010/CMS 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 1180 General Organismic Biology	4
BIO 2100 General Botany	5
BIO 2200 General Zoology	5
BIO 2400 General Microbiology	5
BIO 3140 Plant Physiology	5
BIO 3180 Vascular Plant Taxonomy	4
BIO 3360 Animal Physiology	4
BIO 3550 Urban Ecology	4
BIO 4450 Pathogenic Microbiology	5
BIO 4510 Microbial Ecology	4
BIO 4540 Plant Ecology	4

2003-2004 College Catalog

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 2100 Introduction to Organic and Biological Chemistry.....	5
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)

ENV 1400 World Resources	3
ENV 3400 Water Resources	3
ENV 3620 Population, Resources, and Land Use	3
ENV 4410 Water Law.....	3
ENV 4420 Wetlands.....	3
ENV 4430 Habitat Planning.....	2
GEG 4888 Workshop on Environmental Issues (advisor approved).....	3
GEG 4900 Environmental Seminar (advisor approved).....	3
GIS 2250 Introduction to Geographic Information Systems	3
GIS 4840 Remote Sensing	3
GIS 4850 Advanced Geographic Information Systems	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management....	3
<i>Subtotal</i>	9

Geology (9 hours minimum)

ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity	2
ENV 4000 Environmental Geology (required)	3
ENV 4010 Environmental Hazards and Planning	3
GEL 3120 Advanced Geomorphology	4
GEL 3150 Hydrogeology	3
GEL 3420 Soil Resources	4
GEL 3440 Energy and Mineral Resources	4
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 (recommended for students considering graduate school)	4
MTH 2410 Calculus II	4
<i>Subtotal</i>	3

Meteorology (3 hours minimum)

MTR 1400 Introduction to Meteorology.....	3
MTR 2400 Introduction to Atmospheric Science (recommended).....	4
MTR 3100 Air Pollution.....	3
MTR 3400 Synoptic Meteorology	4

2003-2004 College Catalog

<i>Subtotal</i>	3
<i>Total Multidisciplinary Courses</i>	42
General Studies	36
Additional Electives	10
<i>Total for Multidisciplinary Concentration</i>	120

Hazardous Materials Concentration

Environmental Science Core	32
Additional Required Courses	
CHE 1810 General Chemistry II	Semester Hours 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
ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity	2
ENV 4000 Environmental Geology	3
3420 Soil Resources	4
OSHA Environmental Health and Safety (OSHA 40-hour course).....	3
(offered as continuing education course at Front Range (FRCC) and Red Rocks (RRCC) Community Colleges)	
<i>Subtotal</i>	27

Red Rocks Community College currently offers the following continuing education courses through its Rocky Mountain Education Center (<http://www.rrcc.cccoes.edu/RMEC/index.html>). These courses are currently undergoing the curriculum approval process and will soon be offered for the following academic credit. These courses, along with the two regular courses (FST 107 and WQM 121), are required.

Red Rocks Community College-Continuing Education Courses

CETC 155 Introduction to Environmental Law.....	1
CETC 156 Successful Environmental Management.....	1
OSHA 201A Hazardous Material.....	2
RMEC 902 Industrial Emergency Response: Hazardous Materials Technician-Level 3.....	2
RMEC 903 Industrial Emergency Response: Hazardous Materials Incident Command- Level 5.....	2

Red Rocks Community College-Regular Courses

FST 107 Hazardous Materials Operations.....	3
WQM 121 Environmental Sampling and Volume Measurement.....	4
<i>Subtotal</i>	15
Electives from MSCD.....	10
General Studies.....	36
<i>Total for Hazardous Materials Concentration</i>	120

Water Quality Concentration

Environmental Science Core	32
Additional Required Courses	
CHE 1810 General Chemistry II	Semester Hours 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

2003-2004 College Catalog

GEL 3150 Hydrogeology	3
GEL 4150 Hydrology	3
MTR 2400 Introduction to Atmospheric Science.....	4
OSHA Environmental Health and Safety (OSHA 40-hour course).3 (offered as continuing education course at Front Range (FRCC) and Red Rocks (RRCC)Community Colleges)	
<i>Subtotal</i>	28

Red Rocks Community College Required 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 216 Biological and Bacteriological Water Quality Analysis .4	
<i>Subtotal</i>	14

Select 10 hours from the following courses:

BIO 2400 General Microbiology	5
BIO 3550 Urban Ecology	4
BIO 4510 Microbial Ecology	4
CET 3330 Environmental Technology Processes	3
ENV 3400 Water Resources	3
GEL 3420 Soil Resources	4
MTR 3100 Air Pollution.....	3
WQM 105 Specific Calculations for Water Quality Management (RRCC) ..4	
WQM 200 Hydraulics for Water Quality Management (RRCC).....	4
<i>Subtotal</i>	10
General Studies	36
<i>Total for Water Quality Concentration</i>	120

Ecological Restoration Concentration

Environmental Science Core	32
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Additional Required Courses

CHE 1810 General Chemistry II	4
CHE 1850 General Chemistry Laboratory	2
ECO 3450 Environmental Economics	3
ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2
ENV 4000 Environmental Geology	3
ENV 4010 Environmental Hazards and Planning	3
ENV 49XX Environmental Seminar (advisor approved).....	3
GEL 3420 Soil Resources	4
PSC 3230 Environmental Politics	3
<i>Subtotal</i>	27

Electives (select 25 hours from the following list):

BIO 1180 General Organismic Biology.....	4
BIO 2100 General Botany.....	5
BIO 2200 General Zoology	5
BIO 2400 General Microbiology	5
BIO 3140 Plant Physiology	5
BIO 3180 Vascular Plant Taxonomy	4
BIO 3360 Animal Physiology	4
BIO 3550 Urban Ecology	4
BIO 4510 Microbial Ecology	4

2003-2004 College Catalog

BIO 4540 Plant Ecology	4
GEG/GEL Topics courses (advisor approved).....	2-3
<i>Subtotal</i>	25
General Studies	36
<i>Total for Ecological Restoration Concentration</i>	120

Environmental Chemistry Concentration

Environmental Science Core	32
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Additional Required Courses	Semester Hours
BIO 2400 General Microbiology	5
BIO 4510 Microbial Ecology	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 3050 Environmental Chemistry	3
CHE 3100 Organic Chemistry I.....	4
CHE 3120 Organic Chemistry Laboratory I	2
ENV 4000 Environmental Geology	3
GEL 3420 Soil Resources.....	4
MTR 3100 Air Pollution.....	3
OSHA Environmental Health and Safety (OSHA 40-hour course)..	3
(offered as continuing education course at Front Range and Red Rocks Community Colleges)	
<i>Subtotal</i>	42
General Studies	36
Electives	10
<i>Total for Environmental Chemistry Concentration</i>	120

Environmental Science Major for Secondary Science Teacher Licensure

Core Requirements.....	Semester Hours
BIO 1080 General Introduction to Biology.....	3
BIO 1090 General Introduction to Biology Laboratory.....	1
ENV 1200 Introduction to Environmental Science.....	3
GEG 1220 Map Use.....	2
MTH 1210 Introduction to Statistics.....	4
<i>Subtotal</i>	13

Senior Experience

ENV 4960 Global Environmental Challenges.....	3
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Internship

EDS 4290 Student Teaching and Seminar: Secondary 7-12.....	12
<i>Total Core Requirements</i>	28

Additional Science Requirements:

BIO 1180 General Organismic Biology.....	4
CHE 1100 Principles of Chemistry.....	4
CHE 1150 Principles of Chemistry Laboratory	1
CHE 2100 Introduction to Organic and Biological Chemistry...	5
ENV 3400 Water Resources.....	3
ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2
ENV 4000 Environmental Geology.....	3

2003-2004 College Catalog

GEL 1010 General Geology.....	4
GEL 1030 Historical Geology.....	4
GEL 3150 Hydrogeology.....	3
GEL 4150 Hydrology.....	3
GIS 2250 Introduction to Geographic Information Systems.....	3
MTR 2400 Introduction to Atmospheric Science.....	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
<i>Total Additional Science Requirements.....</i>	<i>53</i>

General Studies:

ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation.....	3
MTH 1400 Precalculus Mathematics.....	4
SPE 1010 Public Speaking.....	3
History-General Studies (elective course).....	3
Arts and Letters-General Studies (elective courses).....	6
Natural Science-General Studies requirement satisfied under Additional Science Requirements	
Social Science-General Studies requirement satisfied under Secondary Education Requirements	
Multicultural-Requirement satisfied under Secondary Education Requirements	
<i>Total General Studies.....</i>	<i>22</i>

Secondary Education Requirements:

EDS 3110 Processes of Education in Multicultural Urban Secondary Schools.....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools.....	2
EDS 3200 Educational Psychology Applied to Teaching.....	3
EDS 3210 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School.....	3
EDS 3220 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School.....	2
EDT 3610 Applications of Educational Technology.....	2
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
SCI 3950 Teaching Science in Middle and Secondary Schools...	3
SED 3600 The Exceptional Learner in the Classroom.....	3
<i>Total Secondary Education Requirements.....</i>	<i>25</i>

Total for Secondary Science Teacher Licensure

<i>Concentration in Environmental Science.....</i>	<i>128</i>
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Environmental Studies Minor

Required Course	Semester Hours
ENV 49XX 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

2003-2004 College Catalog

CHE 1010 Chemistry and Society	3
CHE 1800 Chemistry I	4
ENV 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 316B Readings in Public Administration 1.....	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
CHE 3890 Science and Public Policy: Variable Topics	1-3
COM 3660 Variable Topics in Industrial and Technical Communications	3
ENV 1400 World Resources	3
ENV 3400 Water Resources	3
ENV 4200 Environmental Policy and Planning	3
MTR 3100 Air Pollution.....	3
XXX XXXX Any environmental topics course (advisor approved)	3
<i>Subtotal</i>	6
<i>Total for Environmental Studies Minor</i>	21

Gerontology Minor—Department of Health Professions

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.

2003-2004 College Catalog

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.

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
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
NUT 3100 Nutrition and Aging	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>21-24</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

The History major requires a minimum of 42 semester hours including 15 hours in required courses and an additional 27 hours in courses primarily selected from three different categories.

History majors, with the exception of those seeking Secondary Education Licensure in Social Studies, must complete a minor in another discipline in order to graduate. History majors who are in the Secondary Education Social Studies Licensure Program are required to take other specific social science courses in lieu of a minor. Those specific courses are listed under [Teacher Education](#) in this *Catalog*.

All students should check with a departmental advisor in order to make a proper selection of courses.

2003-2004 College Catalog

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>	15

In addition to the required courses (15 hours) students also need to take at least three courses (9 hours) from Category I: American History Chronological Sequence; at least two courses (6 hours) from Category II: European History Chronological Sequence; and at least two courses (6 hours) from Category III: Enrichment Courses. The remaining two courses (6 hours) may be taken from any of the I, II, or III categories or they may be selected from among any of the other courses offered by the History Department. All history majors must take at least one history course that treats the developing world.

When selecting the 9 courses (27 credits) as described above, secondary education social science licensure students must select at least six courses designated by an asterisk (*) from Categories I, II or III and one course must be HIS 1040–World History since 1500. With departmental permission, Secondary Education students may substitute HIS 4010–Methods of Teaching Secondary School, for HIS 4820–Senior Seminar.

Category I: American History Chronological Sequence (select at least three courses)

HIS 3410 American Colonial History.....	3
HIS 3430 American Revolution and Early National Period, 1763-1848*...	3
HIS 3520 Civil War and Reconstruction*.....	3
HIS 3540 Emergence of Modern US, 1877-1920.....	3
HIS 3640 US World War I through World War II.....	3
HIS 3660 Recent US, 1945-1990s*.....	3
<i>Subtotal</i>	9

Category II: European History Chronological Sequence (select at least two courses)

HIS 3031 Ancient Greece*.....	3
HIS 3060 Rome and the Caesars*.....	3
HIS 3120 Medieval History*.....	3
HIS 3140 Renaissance and Reformation*.....	3
HIS 3200 Early Modern Europe, 1648-1789*.....	3
HIS 3210 French Revolution and Napoleon.....	3
HIS 3230 Nineteenth Century Europe*.....	3
HIS 3260 Twentieth Century Europe, 1914-2000*.....	3
<i>Subtotal</i>	6

Category III: Enrichment Courses (select at least two courses)

HIS 1030 World History to 1500*.....	3
HIS 1040 World History since 1500*.....	3
HIS 1110 Colorado History I*.....	3
HIS 1250 China, Japan, Korea since 1800*.....	3
HIS 1650 Women in US History.....	3
HIS 1920 History of the Chicana/o in the Southwest: 1810 to Present..	3
HIS 1940 Survey of African History*.....	3
HIS 2770 World of Islam.....	3
HIS 3090 Native Americans in American History.....	3
HIS 3240 Russia: Peter the Great to the Present.....	3
HIS 3290 Nazi Germany.....	3
HIS 3310 England to 1714.....	3
HIS 3320 England since 1714.....	3

2003-2004 College Catalog

HIS 3570 African American History I.....	3
HIS 3580 African American History II.....	3
HIS 3590 American Immigration History.....	3
HIS 3700 Modern China.....	3
HIS 3740 Modern Japan.....	3
HIS 3830 The Mexican Revolution.....	3
<i>Subtotal</i>	6

Required courses.....	15
Category I.....	9
Category II.....	6
Category III.....	6
Electives.....	6
<i>Total</i>	42

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

Electives

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

2003-2004 College Catalog

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 [Teacher Education Department](#) section of this *Catalog*.

Prelaw Courses

Several history courses are of particular importance to legal studies. These include HIS 1210, HIS 1220, 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:

CJC 2100 Substantive Criminal Law	3
MGT 2210 Legal Environment of Business I	3
MGT 3220 Legal Environment of Business II	3
SOC 3500 Criminology	3
WMS 3310 Women and the Law	3
<i>Total</i>	24

Holistic Health and Wellness Education Multi-Disciplinary Minor—Department of Health Professions

The holistic health and wellness education multi-disciplinary 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 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.

2003-2004 College Catalog

The minor comprises 21 hours of study:

Required Courses	Semester Hours
HES 1050 Dynamics of Health	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
NUT 2040 Introduction to Nutrition	3
Approved electives*.....	3
Approved ethics course.....	3
<i>Total</i>	21

***Students in the minor who do not have a research course required in their major are required to use the elective hours to obtain research skills. Students in the minor who do not have an internship required in their major are encouraged to arrange a practical experience through HES 3980. Courses should be selected in consultation with a faculty advisor.*

To meet the General Studies multicultural requirement, ANT 3480–Cultural Diversity in Health and Illness, is highly recommended.

To meet the General Studies natural sciences requirement, a course in human biology is highly recommended.

Human Development-Department of Psychology

This interdisciplinary major in human development will provide students with a focus on the entire life span and in-depth knowledge about theory, research, and application in human development. Students will participate in field experience to make connections between theory, research, and practice. The major has three separate tracks, serving the needs of students seeking early childhood education teacher licensure (early childhood education track), students interested in gerontology or planning other careers working with children and adults (applied track and applied track–gerontology), and students who wish to pursue graduate study (graduate school track).

Human Development Major for Bachelor of Arts

Required Common Core.....	Semester Hours
BIO 1000 Human Biology for Non-Majors.....	3
PSY 1001 Introductory Psychology.....	3
PSY 3280 Developmental Research Methods.....	3
PSY 3340 Cognitive Development and Learning..	3
PSY 4960 Senior Thesis in Human Development..	3
SOC 1010 Introduction to Sociology.....	3
Subtotal.....	18

Required Distribution:

In addition, students must choose one course from each category. NOTE: Each student must also select a track, and in the early childhood education and gerontology tracks, specific courses from the following categories are required (see tracks below).

Developmental Foundations

PSY 1800 Developmental Educational Psychology...	4
PSY 3250 Child Psychology.....	3
PSY 2270 or SOC 3100 Death and Dying.....	3

Developmental Breadth

PSY 3240 Infancy.....	3
PSY 3260 Psychology of Adolescence.....	3
PSY 3270 Adulthood and Aging.....	3

Health Issues

2003-2004 College Catalog

HES 3070 Parental Health Care Issues.....	3
NUT 2040 Introduction to Nutrition.....	3

Social Influences

SOC 3410 The Family in Transition.....	3
SOC 1040 Introduction to Social Gerontology.....	3
SWK 2100 Introduction to Family Social Work.....	3

Cultural Context

ECE 4360 Cultural Influence on the Socialization of Children...	3
LES 2330 Advocacy, Leisure, and the Aging Adult..	3
SOC 3400 Childhood and Adolescent Socialization..	3
<i>Subtotal</i>	33-34
Additional Requirements (dependent upon the track)...	9
<i>Total for the Major</i>	42-43

Students must choose one of the following four tracks. All students must have 15 upper-division hours in the major, and transfer students must complete at least 15 hours of the major at MSCD.

Graduate School Track

Required Courses.....	Semester Hours
Common Core.....	18
Required Distribution.....	15-16
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences(a)	3
PSY 2320 Inferential Statistics.....	3
PSY 3310 Psychological Research Methods I.....	3
Total for Major with Graduate School Track..	42-43

(a) Students who have taken MTH 1210 or its equivalent in transfer before deciding to major in human development may substitute it for PSY 2310. However, MTH 1210 cannot be used both in the major and to satisfy the Level I General Studies mathematics requirement.

Applied Track

Required Courses.....	Semester Hours
Common Core.....	18
Required Distribution.....	15-16

In addition, students must take nine semester hours from the following list or from courses in the required distribution list not already used. Students may not use the same courses to count for the major and for the minor or General Studies.

AAS 3550 The Black Family.....	3
BIO 3530/HES 3810 Physiology of Aging for Non-Biology Majors(b) ..	3
CHS 3210 The Chicano Family.....	3
ECE 3340 Administration of Early Childhood Programs.....	4
EDU 4310 Parents as Partners in Education.....	3
HPS 4500 Motor Learning and Development.....	3
HSP 1010 Introduction to Human Services and Community Resources..	3
NUT 3100 Nutrition and Aging.....	3
PAR 2050 Introduction to Parent Education.....	3
PAR 3070 Working with the Contemporary Family.....	3
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences(a,b)	3
PSY 3400 Psychology of Exceptional Children.....	3
SOC 3040 Contemporary Issues in Gerontology.....	3

2003-2004 College Catalog

SOC 3220 Race, Gender and Ethnic Groups.....	3
SOC 3420 Education in a Changing Society.....	3
SPE 2890 Language Acquisition.....	3
SWK 3030 Social Work with the Aging.....	4
SWK 3100 Child Welfare and the Law.....	3
SWK 3200 Social Work with Urban Families.....	3
SWK 3300 Social Work with Parents with Developmental Disabilities...	1
Subtotal.....	9
Total for Major with Applied Track.....	42-43

(a)Students who have taken MTH 1210 or its equivalent in transfer before deciding to major in human development may substitute it for PSY 2310. However, MTH 1210 cannot be used both in the major and to satisfy the Level I General Studies mathematics requirement.

(b)Students focusing on gerontology in the applied track must take these two courses plus either NUT 3100 or SOC 3040 or SWK 3030.

Students who are interested in a particular concentration within the applied track (e.g., a particular age emphasis, cultural or family issues, problems of development) should see a human development advisor in the Department of Psychology for course selection. It is permissible to select all electives from the same department.

Applied Track–Gerontology

Required Courses.....	Semester Hours
Common Core.....	18

Required Distribution as follows:

Developmental Foundations

PSY 2270 Death and Dying

-or-

SOC 3100 Death and Dying.....3

Developmental Breadth

PSY 3270 Adulthood and Aging.....3

Health Issues

NUT 2040 Introduction to Nutrition.....3

Social Influences

SOC 1040 Introduction to Social Gerontology.....3

Cultural Context

LES 2330 Advocacy, Leisure, and the Aging Adult...3

Subtotal.....33

In addition, students must take nine semester hours from the following list of courses. Students may not use the same courses to count for the major and for the minor or General Studies. Students in the Applied Track–Gerontology may not have a gerontology minor.

BIO 3530/HES 3810 Physiology of Aging for Non-Biology Majors.....	3
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences(a).....	3
NUT 3100 Nutrition and Aging	
-or-	
SOC 3040 Contemporary Issues in Gerontology	
-or-	
SWK 3030 Social Work with the Aging.....	3-4
Total for Major with Applied Track–Gerontology...	42-43

2003-2004 College Catalog

(a)Students who have taken MTH 1210 or its equivalent in transfer before deciding to major in human development may substitute it for PSY 2310. However, MTH 1210 cannot be used both in the major and to satisfy the Level I General Studies mathematics requirement.

Students interested in the Applied Track in Gerontology should consult an advisor in Health Professions.

Early Childhood Education Track

Required Courses.....Semester Hours
Common Core.....18

Required Distribution as follows:

Developmental Foundations

PSY 1800 Developmental Educational Psychology.....4

Developmental Breadth

PSY 3240 Infancy.....3

Health Issues

HES 3070 Parental Health Care Issues

-or-

NUT 2040 Introduction to Nutrition.....3

Social Influences

SOC 3410 The Family in Transition.....3

Cultural Context

ECE 4360 Cultural Influence on the

Socialization of Children.....3

Subtotal.....34

In addition, students must take nine semester hours from the following list of courses. Students may not use the same courses to count for the major and for the minor or General Studies.

ECE 3340 Administration of Early Childhood Programs..4

EDU 4310 Parents as Partners in Education.....3

HPS 4500 Motor Learning and Development.....3

PSY 2310 Introduction to Statistics for
Social and Behavioral Sciences(a).....3

PSY 3400 Psychology of Exceptional Children.....3

SPE 2890 Language Acquisition.....3

Total for Major with Early Childhood Education Track..43-44

(a)Students who have taken MTH 1210 or its equivalent in transfer before deciding to major in human development may substitute it for PSY 2310. However, MTH 1210 cannot be used both in the major and to satisfy the Level I General Studies mathematics requirement.

Students pursuing teacher licensure should consult with an advisor in the Teacher Education Department for the current licensure requirements of the Colorado Department of Education.

Journalism Program

Department of Communication Arts and Sciences

The Journalism program 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 program 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.

2003-2004 College Catalog

Proficiency in standard written English is a prerequisite for all journalism courses. Students are required to complete ENG 1010 before taking any journalism courses beyond JRN 1010.

Students should select an advisor early in their course of study. Students may not select both a major and minor from the Journalism program. The Journalism program will provide students with a list of suggested General Studies courses to help them gain a broad base of knowledge necessary for working in news and information media.

To make journalism graduates more marketable in our multicultural society, journalism majors are required to take four semesters of one foreign language or prove their proficiency in a language other than English.

The Journalism Department offers a major with three concentrations- [news/editorial](#), [photojournalism](#), and [public relations](#) - and minors in journalism, photojournalism and public relations.

Journalism Major for Bachelor of Arts

Core Courses for all concentrations.....	Semester Hours
JRN 1010 Introduction to Journalism and Mass Media	3
JRN 1200 Beginning Editing.....	3
JRN 2210 Beginning Layout and Design.....	3
JRN 4500 Ethical and Legal Issues in Journalism	3
<i>Subtotal</i>	12

News/Editorial Concentration

Journalism Core	12
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Required Courses

JRN 1100 Beginning Reporting.....	3
JRN 2100 Intermediate Reporting.....	3
JRN 3200 Intermediate Editing.....	3
JRN 3981 Cooperative Education: News/Editorial.....	3
(JRN 3981 may be taken more than once with permission of the department chair.)	
<i>Subtotal</i>	12

Select at least 12 hours:

JRN 1600 Survey of Photojournalism.....	3
JRN 1700 Survey of Public Relations.....	3
JRN 2980 Cooperative Education.....	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 3600 Photojournalism I.....	3
JRN 4100 Investigative Reporting.....	3
JRN 4210 Advanced Layout and Design.....	3
JRN 4400 Feature Article Writing for Magazines.....	3
JRN 4600 Photojournalism II.....	3
JRN 4890 Social Documentary.....	3
<i>Subtotal</i>	12
<i>Total</i>	36

Photojournalism Concentration

Journalism Core	12
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2003-2004 College Catalog

Required Courses

ART 1030 Basic Photography Methods (or equivalent beginning photography course).....	3
JRN 1100 Beginning Reporting.....	3
JRN 2100 Intermediate Reporting.....	3
JRN 2600 Introduction to Photojournalism.....	3
JRN 3600 Photojournalism I.....	3
JRN 4600 Photojournalism II.....	3
JRN 3982 Cooperative Education: Photojournalism.....	3
(JRN 3982 may be taken more than once with permission of the department chair)	
<i>Subtotal</i>	21

Select at least 3 hours:

ART 1200 Design Processes and Concepts I.....	3
ART 2200 Beginning Photography.....	3
ART 3200 Intermediate Photography.....	3
ART 3230 Color Photography.....	3
ART 3410 Digital Video Art.....	3
JRN 1700 Survey of Public Relations.....	3
JRN 2100 Intermediate Reporting.....	3
JRN 3100 Publication Practicum.....	3
JRN 3150 Contemporary Issues.....	3
JRN 3200 Intermediate Editing.....	3
JRN 3400 Feature Article Writing for Newspapers.....	3
JRN 3500 Topics in Journalism.....	1
JRN 4210 Advanced Layout and Design.....	3
JRN 4400 Feature Article Writing for Magazines.....	3
JRN 4890 Social Documentary.....	3
<i>Subtotal</i>	3
<i>Total</i>	36

Public Relations Concentration

Journalism Core	12
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Required Courses

JRN 1110 Media Writing.....	3
JRN 2700 Fundamentals of Public Relations.....	3
JRN 3700 Public Relations Writing.....	3
JRN 3983 Cooperative Education: Public Relations.....	3
(JRN 3983 may be taken more than once with permission of the department chair)	
JRN 4700 Public Relations Strategic Planning.....	3
MKT 3000 Principles of Marketing.....	3
SPE 3100 Business and Professional Speaking.....	3
SPE 3440 Television Production.....	3
SPE 4100 Techniques of Persuasion.....	3
<i>Subtotal</i>	27

Select at least 3 hours:

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 1600 Survey of Photojournalism.....	3
JRN 2600 Introduction to Photojournalism.....	3

2003-2004 College Catalog

JRN 3200 Intermediate Editing.....	3
JRN 3400 Feature Article Writing for Newspapers.....	3
JRN 4210 Advanced Layout and Design.....	3
JRN 4400 Feature Article Writing for Magazines.....	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
<i>Subtotal</i>	3
<i>Total</i>	42

Journalism MinorSemester Hours

JRN 1010 Introduction to Journalism and Mass Media...	3
JRN 1100 Beginning Reporting.....	3
JRN 1200 Beginning Editing.....	3
JRN 2100 Intermediate Reporting.....	3
JRN 3981 Cooperative Education: News/Editorial.....	3
JRN 4500 Ethical and Legal Issues in Journalism.....	3
<i>Total</i>	18

Photojournalism Minor.....Semester Hours

JRN 1010 Introduction to Journalism and Mass Media...	3
JRN 1100 Beginning Reporting.....	3
JRN 1200 Beginning Editing.....	3
JRN 2600 Introduction to Photojournalism.....	3
JRN 3600 Photojournalism I.....	3
JRN 3982 Cooperative Education: Photojournalism.....	3
JRN 4500 Ethical and Legal Issues in Journalism.....	3
<i>Total</i>	21

Public Relations MinorSemester Hours

JRN 1010 Introduction to Journalism and Mass Media...	3
JRN 1110 Media Writing.....	3
JRN 1200 Beginning Editing.....	3
JRN 2700 Fundamentals of Public Relations.....	3
JRN 3700 Public Relations Writing.....	3
JRN 3983 Cooperative Education: Public Relations.....	3
(JRN 3983 may be taken more than once with permission of the department chair)	
JRN 4500 Ethical and Legal Issues in Journalism.....	3
JRN 4700 Public Relations Strategic Planning.....	3
<i>Total</i>	24

Digital Media Minor

Land Use Program

Department of Earth and Atmospheric Sciences

The land use major is a 65 hour extended major that combines general planning courses with a focused area of study (concentration), including environment and resources, geographic information systems, geology, or urban land use planning, linked by the vital thread of land use management. Students will receive a bachelor of science degree except when their concentration is urban land use planning in which case the student will receive a bachelor of arts degree. The major equips students with a dynamic foundation for understanding issues and solving problems that confront the community and environment, making them highly competitive in the job market. The program is broad in scope and can be applied to a number of career objectives and graduate school programs. Opportunities exist in such areas as cartography, environment and resource management, environmental science, geographic information systems, geology, mining and mineral resources, planning, population analysis, recreational land use, remote sensing, residential and industrial development, transportation, and a variety of other interrelated fields. Because the land use degree is an extended major, it does not require a minor. **Each student must have a department advisor and consult with his/her advisor regarding course work to avoid prerequisite problems.**

Required Core

The four concentration areas have a common 16-hour required core:

Required Core	Semester Hours
GEG 1220 Map Use.....	2
GEG 1610 Introduction to Planning.....	1
GEL 1010 General Geology.....	4
GEG 4950 Internship in Land Use	
-or-	
GEL 4950 Internship in Geology.....	2
GIS 2250 Introduction to Geographic Information Systems..	3
MTH 1210 Introduction to Statistics.....	4
<i>Required Core Total</i>	16

Land Use Major for Bachelor of Science

Environment and Resources Concentration

Required Courses	Semester Hours
Required Core.....	16

CET 3320 Environmental Impact Statements.....	3
ENV 1200 Introduction to Environmental Science.....	3
ENV 1400 World Resources.....	3
ENV 3400 Water Resources.....	3
ENV 4000 Environmental Geology.....	3
ENV 4010 Environmental Hazards and Planning.....	3
ENV 4200 Environmental Policy and Planning.....	3
ENV 4430 Habitat Planning.....	2
ENV 4960 Global Environmental Challenges (Senior Experience)	
-or-	
ENV 4970 Environmental Field Studies (Senior Experience).	3
GEL 3150 Hydrogeology.....	3
GEL 3420 Soil Resources.....	4
GEL 3440 Energy and Mineral Resources.....	4
<i>Subtotal</i>	37

Electives (Select a minimum of 12 credit hours)

COM 3670 Writing for the Environmental Industry.....	3
ECO 3450 Environmental Economics.....	3
ENV 4410 Water Law.....	3
ENV 4420 Wetlands.....	3
GEG 3610 Principles of Land Use Planning.....	3
GEL 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2

2003-2004 College Catalog

GEL 4150 Hydrology.....	3
GIS 4840 Remote Sensing (recommended).....	3
GIS 4850 Advanced Geographic Information Systems.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management (recommended).....	3
<i>Subtotal</i>	12
<i>Total for major</i>	65

Geology Concentration

Required Courses.....	Semester Hours
Required Core.....	16
ENV 4000 Environmental Geology.....	3
ENV 4010 Environmental Hazards and Planning.....	3
ENV 4970 Environmental Field Studies (Senior Experience).....	3
GEL 1030 Historical Geology.....	4
GEL 3050 Mineralogy and Petrology.....	4
GEL 3060 Stratigraphy and Structure.....	4
GEL 3120 Advanced Geomorphology.....	4
GEL 3150 Hydrogeology.....	3
GEL 3420 Soil Resources.....	4
GEL 3440 Energy and Mineral Resources.....	4
GEL 4150 Hydrology.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management.....	3
<i>Subtotal</i>	42

Electives (Select a minimum of 7 credit hours)

ENV 1400 World Resources.....	3
ENV 3400 Water Resources.....	3
ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2
GEG 1240 Landforms of the U.S.....	3
GEL 1020 Geology of Colorado.....	3
GEL 1150 Oceanography.....	3
GEL 3510 Advanced Geology of Red Rocks Park and Vicinity.....	1
GEL 3520 Advanced Garden of the Gods-Front Range Geology.....	2
GEL 3530 Advanced Geology of the Colorado Plateau.....	2
GEL 3550 Advanced Geology of the Great Sand Dunes National Monument.....	2
GEL 3560 Advanced Canoeing the Canyon Country.....	2
GEL 3570 Advanced Geology of the Flattops Volcanic Wilderness Area.....	2
GEL 3580 Advanced Geology of the Wheeler Geologic Area.....	2
GEL 390X Advanced Topics in Geology.....	1-3
GIS 1710 Terrestrial Navigation.....	2
GIS 4850 Advanced Geographic Information Systems (recommended).....	3
<i>Subtotal</i>	7
<i>Total for major</i>	65

Geographic Information Systems (GIS) Concentration

Required Courses.....	Semester Hours
Required Core.....	16

CMS 1010 Introduction to Computers

-or-

CSS 1010 Introduction to Computers.....3

2003-2004 College Catalog

GEG 3610 Principles of Land Use Planning.....	3
GIS 1710 Terrestrial Navigation.....	2
GIS 3210 Introduction to Cartography.....	4
GIS 3250 Computer Cartography.....	3
GIS 4840 Remote Sensing.....	3
GIS 4850 Advanced Geographic Information Systems.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management.....	3
GIS 4870 Spatial Databases Design, Implementation, and Management.....	3
GIS 4890 Advanced GIS Laboratory (Senior Experience).....	3
<i>Total required concentration.....</i>	<i>30</i>

Because GIS is an application tool, students are required to specialize in an **area of interest**. One of the following interest areas must be selected or one may be designed and approved by a department advisor. Select a minimum of 19 credit hours from one of the following areas, resulting in a major total of 65 hours. Note: other suggestions include the courses comprising minors in Computer Science (School of Letters, Arts and Sciences); Computer Information Systems, General Business, International Business, Marketing (School of Business), and Criminal Justice and Criminology (School of Professional Studies).

Areas of Interest

Environment

Courses.....	Semester Hours
ENV 1200 Introduction to Environmental Science.....	3
ENV 3540 Advanced Geologic and Environmental Hazards-Denver and Vicinity.....	2
ENV 4000 Environmental Geology (required).....	3
ENV 4010 Environmental Hazards and Planning.....	3
ENV 4200 Environmental Policy and Planning.....	3
ENV 4420 Wetlands.....	3
ENV 4430 Habitat Planning.....	2
ENV 4960 Global Environmental Challenges.....	3
ENV 4970 Environmental Field Studies.....	3
GEG 4XXX Advanced Seminars, Topics, or Workshops in Geography.....	1-3
GEL 3150 Hydrogeology.....	3
GEL 4150 Hydrology.....	3
<i>Subtotal.....</i>	<i>19</i>

Meteorology

Courses.....	Semester Hours
MTR 2400 Introduction to Atmospheric Science (required).....	4
MTR 2410 Weather Observing Systems.....	3
MTR 3100 Air Pollution.....	3
MTR 3400 Synoptic Meteorology (required).....	4
MTR 3420 Radar and Satellite Meteorology.....	3
MTR 3500 Hazardous Weather.....	3
MTR 4210 Forecasting Laboratory I.....	2
MTR 4440 Climatology.....	3
MTR 4500 Mesometeorology.....	3
<i>Subtotal.....</i>	<i>19</i>

Planning

Courses.....	Semester Hours
ENV 1200 Introduction to Environmental Science.....	3
ENV 4000 Environmental Geology.....	3

2003-2004 College Catalog

ENV 4010 Environmental Hazards and Planning.....	3
ENV 4200 Environmental Policy and Planning.....	3
ENV 4430 Habitat Planning.....	2
GEG 3610 Principles of Land Use Planning.....	3
GEG 3630 Transportation Planning and Land Use.....	3
GEG 4610 Urban and Regional Planning.....	3
GEG 4620 Residential Land Use Patterns.....	3
GEG 4640 Recreational Land Use Patterns.....	3
GEG 4XXX Advanced Seminars, Topics or Workshops in Geography.....	1-3
<i>Subtotal</i>	19

Resources

Courses.....	Semester Hours
ENV 1400 World Resources.....	3
ENV 3400 Water Resources.....	3
ENV 3620 Population, Resources, and Land Use.....	3
ENV 4960 Global Environmental Challenges.....	3
GEL 3150 Hydrogeology.....	3
GEL 3420 Soil Resources.....	4
GEL 3440 Energy and Mineral Resources.....	4
GEL 4150 Hydrology.....	3
<i>Subtotal</i>	19

Major Total.....65

Land Use Major for Bachelor of Arts

Urban Land Use Planning Concentration

Required Courses.....	Semester Hours
Required Core.....	16

ENV 1200 Introduction to Environmental Science.....	3
ENV 3620 Population, Resources, and Land Use.....	3
ENV 4200 Environmental Policy and Planning.....	3
ENV 4430 Habitat Planning.....	2
ENV 4960 Global Environmental Challenges (Senior Experience).....	3
GEG 1300 Introduction to Human Geography.....	3
GEG 2300 Geographic Analysis of Social Issues.....	3
GEG 3360 Geography of Economic Activity.....	3
GEG 3600 Urban Geography.....	3
GEG 3610 Principles of Land Use Planning.....	3
GEG 3630 Transportation Planning and Land Use.....	3
GEG 4610 Urban and Regional Planning.....	3
GEG 4620 Residential Land Use Patterns.....	3
GEG 4640 Recreational Land Use Patterns.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management.....	3
<i>Subtotal</i>	44

Electives (Select a minimum of 5 credit hours)

ENV 4000 Environmental Geology.....	3
ENV 4010 Environmental Hazards and Planning.....	3
ENV 4420 Wetlands.....	3
GEG 3300 Land Use, Culture and Conflict (Multicultural)...	3
GEG 3920 Directed Study in Land Use.....	3

2003-2004 College Catalog

GEG 4710 Legal Aspects of Land Use.....	3
GEG 488X Advanced Workshops in Geography.....	1-3
GEG 490X Advanced Topics or Seminars in Geography.....	1-3
<i>Subtotal</i>	5
<i>Total for major</i>	65

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 elective hours are required, **including a minimum of six hours of upper-division credit that must be selected in consultation with a department advisor to avoid prerequisite problems.** These electives must be selected from the following five groups, and at least one course must be selected from each group to satisfy this requirement.

Physical

GEG 1100 Introduction to Physical Geography	3
GEG 1240 Landforms of the U. S.	3
GEL 1010 General Geology	4

Resources and Environment

ENV 1200 Introduction to Environmental Science.....	3
ENV 1400 World Resources.....	3
ENV 3400 Water Resources.....	3
ENV 4000 Environmental Geology.....	3
GEL 3420 Soil Resources.....	4
GEL 3440 Energy and Mineral Resources.....	4

Spatial Analysis and Planning

ENV 3620 Population, Resources, and Land Use.....	3
ENV 4010 Environmental Hazards and Planning.....	3
ENV 4200 Environmental Policy and Planning.....	3
ENV 4430 Habitat Planning.....	2
GEG 2300 Geographic Analysis of Social Issues.....	3
GEG 3600 Urban Geography.....	3
GEG 3610 Principles of Land Use Planning.....	3
GEG 3630 Transportation Planning and Land Use.....	3
GEG 4610 Urban and Regional Planning.....	3
GEG 4620 Residential Land Use Patterns.....	3
GEG 4640 Recreational Land Use Patterns.....	3
GEG 4710 Legal Aspects of Land Use.....	3
GEG 4XXX Advanced Geography Seminars, Topics or Workshops.....	1-3
GIS 2250 Introduction to Geographic Information Systems.....	3
GIS 4850 Advanced Geographic Information Systems.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management.....	3

Regional Geography

GEG 1000 World Regional Geography	3
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2003-2004 College Catalog

GEG 2020 Geography of Colorado.....	3
GEG 3000 Historical Geography of the US	3
GEG 3520 Regional Geography: Variable Topics.....	2-3
GEL 1020 Geology of Colorado.....	3

Field-Lecture Course

Either a geography or geology field-lecture course.....1-2

Elective subtotal.....13-16

Geography Minor Total.....22-25

Minor in Geology

Required CoreSemester Hours

GEL 1010 General Geology4

GEL 1030 Historical Geology.....4

GEL 3050 Mineralogy and Petrology4

GEL 3060 Stratigraphy and Structure4

Subtotal16

Electives

A minimum of eight additional hours of upper-division credit must be selected from the following list in consultation with a department advisor to avoid prerequisite problems. A maximum of four credit hours of the minor may be selected from the upper-division field-lecture courses.

ENV 4000 Environmental Geology.....3

ENV 4010 Environmental Hazards and Planning.....3

ENV 4970 Environmental Field Studies.....3

GEL 3120 Advanced Geomorphology.....4

GEL 3150 Hydrogeology.....3

GEL 3420 Soil Resources.....4

GEL 3440 Energy and Mineral Resources.....4

GEL 35XX Various Advanced Geology Field-Lecture courses (a limit of four hours of field-lecture courses can be counted toward the minor).....1-2

GEL 390X Advanced Topics in Geology.....1-3

GEL 4150 Hydrology.....3

Subtotal.....8

Geology Minor total.....24

CERTIFICATE PROGRAMS AVAILABLE:

Students must complete each course in a certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

The certificate of completion in Geographic Information Systems will provide students and working professionals with the theoretical knowledge and technical and application skills needed to successfully use Geographic Information Systems (GIS), remote sensing, Global Positioning Systems (GPS), and cartography to determine solutions to problems in the management, conservation, and improvement of natural and man-made environments.

In any field related to natural resources, and for many fields related to the administration of man-made environments, education and training in GIS have gone from being specialized skills to being *de facto* requirements. This certificate is designed for professionals who work in those fields, for professionals who analyze human and socio-economic data, and for degree-seeking students interested in anthropology, archeology, biology, business, civil engineering technology, criminal justice, ecology, economics, environmental science, geography, geology,

health sciences, land use planning, and social sciences, as well as other programs.

Admissions Requirements:

1. There are no special admission requirements for students seeking GIS certification.
2. All students must take the prerequisite courses or provide evidence of equivalent training and receive an official waiver. The courses that have prerequisites are GIS 2250 and GIS 4840. GIS 4850 and GIS 4890 require upper-division standing or senior standing. All courses can be taken by permission of instructor (the official waiver).

Completion Requirements:

All students seeking GIS certification must maintain a 3.0 or above in the courses required for the certificate because GIS technology and its applications require a high degree of discipline and commitment.

Required Courses.....	Semester Hours
GIS 1710 Terrestrial Navigation.....	2
GIS 2250 Introduction to Geographic Information Systems.....	3
GIS 3250 Computer Cartography.....	3
GIS 4840 Remote Sensing.....	3
GIS 4850 Advanced Geographic Information Systems.....	3
GIS 4860 Applications of ARC/INFO to Natural Resources Management...3	
GIS 4870 Spatial Databases Design, Implementation, and Management...3	
GIS 4890 Advanced GIS Laboratory.....	3
<i>Total credits for certificate.....</i>	<i>23</i>

GEOTECHNOLOGY SYSTEMS (GTS)

The Geotechnology Systems Certificate (GTS) will provide students and industry personnel with the necessary theoretical knowledge and technical and application skills needed to apply geologic computer software and cartography to support geologists in their decision-making processes. Further, this certificate is designed for industry personnel who work with the management and exploitation of natural resources, such as petroleum and water resources, as well as for degree-seeking students interested in environmental science, geology, land use planning, and related fields.

Increasing operating costs and decreasing budgets for hiring professional geologists, geophysicists, and petroleum engineers has produced a demand for mid-level persons trained in petroleum technology. Using the latest computer methods, these geotechnicians or “geotechs” typically perform data searches, generate maps and cross sections, gather and organize well data, and perform numerous other tasks in support of exploration and development efforts. By some estimates, the combination of a geologist with a geotechnician will result in a synergy that produces more than twice the output of either working alone. The result is a significant increase in productivity.

Admissions Requirements:

1. There are no special admission requirements for students seeking GTS certification.
2. All students must take the prerequisite courses or provide evidence to the instructor that they have equivalent training before they can enroll in certificate courses. Some courses in the certificate are prerequisites to other courses in the certificate. Prerequisite courses that are not listed as courses required for the certificate are: GEL 1010-4, General Geology; CMS/CSS 1010-3, Introduction to Computers; GEG 1220-2, Map Use; and GIS 2250-3, Introduction to Geographic Information Systems.

Completion Requirements:

All students seeking GTS certification must maintain a 3.0 or above in the certificate program. Geotechnology and its applications require a high degree of discipline and commitment. The courses required for the certificate are very challenging with regard to the theoretical and practical subjects. They require a significant amount of time devoted to hands-on and laboratory exercises. Students successfully completing this certificate can take pride in their accomplishment.

2003-2004 College Catalog

Required Courses.....	Semester Hours
GEL 1030 Historical Geology.....	4
GEL 2700 Introduction to Petroleum Technology.....	3
GEL 2710 Computer Applications in Earth Sciences.....	3
GEL 3060 Stratigraphy and Structure.....	4
GEL 3700 Integrated Geotechnology.....	3
GEL 3710 Earth Sciences Data Management.....	3
GEL 4700 Subsurface Geology.....	3
GIS 3250 Computer Cartography.....	3
Total Credits.....	26

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 on page 122 of this *Catalog*. 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 course work 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
Total	15

**Some sections of this course have a Mathematica component.*

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 course MTH 3240 does not count toward a mathematics major or a mathematics minor.

2003-2004 College Catalog

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

The general concentration in mathematics is designed to meet the needs of students with diverse mathematical interests or background, since it allows considerable flexibility among upper-division course choices.

Required Courses	Semester Hours
Basic Core	15

One of the following three courses:

CSI 1050 Computer Science 1	4
CSS 1247 Introduction to Programming: Visual Basic.....	4
MTH 1510 Computer Programming: FORTRAN	4

MTH 4390 Mathematics Senior Seminar	1
<i>Subtotal</i>	20

A minimum of 22 credit hours chosen from MTH 2140*, or any upper-division mathematics courses with the exception of MTH 3240. The 22 credit hours must include at least 20 upper-division hours, at least seven hours of 4000-level courses in mathematics, including at least one Senior Experience course in mathematics, and one of the following sequences:

MTH 3110 and MTH 3140* OR MTH 3110 and MTH 4110 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

<i>Subtotal</i>	22
<i>Total</i>	42

**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

2003-2004 College Catalog

MTH 3420 Differential Equations	4
MTH 3440 Partial Differential Equations	4
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 1050 Computer Science 1	4
CSI 2050 Computer Science 2	4
CSI 3050 Computer Science 3.....	4
CSI 3210 Principles of Programming Languages ..	4
CSI 3240 Introduction to the Theory of Computation..	2
CSI 4050 Algorithms and Algorithm Analysis.....	4
CSI 4250 Software Engineering Principles	4
<i>Total Hours Required for Minor</i>	26

**Note: Required courses are pending approval.*

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

2003-2004 College Catalog

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.

Required CoursesSemester Hours
Basic Core15

One of the following three courses:

CSI 1050 Computer Science 14
CSS 1247 Introduction to Programming: Visual Basic4
MTH 1510 Computer Programming: FORTRAN4
Subtotal4

MTH 3110 Abstract Algebra I3
MTH 3140 Linear Algebra4
MTH 3210 Probability and Statistics4
MTH 3470 Introduction to Discrete Mathematics
and Modeling3
MTH 3650 Foundations of Geometry3
MTH 4600 Seminar in Problem Solving1
MTH 4640 History of Mathematics4
Total41

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 pages 255-268). Students should pay particular attention to corequisites and prerequisites.

Required CoursesSemester Hours
EDS 3110 Processes of Education in Multicultural
Urban Secondary Schools(a).....3
EDS 3120 Field Experiences in Multicultural Urban
Secondary Schools(a).....2
EDS 3200 Educational Psychology Applied to Teaching3
EDS 3210 Standards-Based Curriculum, Assessment,
and Classroom Management in the Secondary School(b).....3
EDS 3222 Field Experience in Mathematics Teaching,
Assessment, and Management in the Secondary School(b).....2
EDT 3610 Applications of Educational Technology(c).....2-3
MTL 3620 Mathematics of the Secondary Curriculum4
MTL 3630 Teaching Secondary Mathematics(d).....3
MTL 3638 Secondary Mathematics Field Experience(d).....2
MTL 4690 Student Teaching and Seminar: Secondary 7-12....12
RDG 3280 Teaching Literacy Skill Development
in the Content Areas4
SED 3600 The Exceptional Learner in the Classroom3
Total43-44

a) These two courses must be taken concurrently.

b) These two courses must be taken concurrently.

c) Although EDT 3610 is required, it is expected that Mathematics Education majors will test out of this class by demonstrating the expected outcomes.

d) 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

One of the following courses:

CSI 1050 Computer Science 1	4
CSS 1247 Introduction to Programming: Visual Basic	4
MTH 1510 Computer Programming: FORTRAN	4
<i>Subtotal</i>	12

2003-2004 College Catalog

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 except MTH 3240, or any course approved by the Mathematical and Computer Sciences Department.

Electives	10
Total	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

Department of Earth and Atmospheric Sciences

Meteorology is the science of the atmosphere. Meteorologists are employed in operational meteorology, meteorological research, applied meteorology, and the media. Meteorologists study global weather and climate, and investigate the influence that human beings exert on earth's climate. The Meteorology Computer Laboratory provides access to real-time weather data and analysis software supported by the UNIDATA Program. The bachelor of science degree conforms to the American Meteorological Society and National Weather Service recommendations for an undergraduate meteorology degree. A mathematics minor is a requirement of the meteorology major. 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 3410 Weather Analysis Techniques.....	2
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
Subtotal	42

Required Mathematics Minor

MTH 1410 Calculus I	4
MTH 1510 Computer Programming: FORTRAN	
-or-	
CSI 1050 Computer Science 1	4
MTH 2410 Calculus II	4
MTH 2420 Calculus III	4
MTH 3210 Probability and Statistics	4
MTH 3420 Differential Equations	4
Subtotal	24

Additional Course Requirements*

CHE 1800 General Chemistry I.....	4
ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research,	

2003-2004 College Catalog

and Documentation.....	3
PHY 2311, 2321 General Physics I and Laboratory.....	5
PHY 2331, 2341 General Physics II and Laboratory.....	5
Level I Communications.....	3
Level II Arts and Letters.....	6
Level II Historical.....	3
Level II Social Science.....	6
Subtotal.....	38
General Electives.....	16
Total	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
Total	20

Modern Languages Department

The Modern Languages Department offers a major program in modern languages with concentrations in French, German, and Spanish; minor programs in French, German, and Spanish; and teacher education programs in a variety of combinations. 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 study abroad programs, as well as certificate programs in basic French, German, and Spanish studies.

Students are placed in courses at levels appropriate to their ability as indicated by the BYU placement exam.

The above may not be applicable if students have had no professional instruction in their chosen foreign language within the past two years. Students can also take a 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 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 Bachelor of Arts in Modern Languages degree may be completed by selecting either Option I or Option II. Students are advised into intermediate and advanced classes in each language on the basis of individual background and need.

Option I

This Modern Languages major option requires a minimum of 42 hours in one of the following languages: French, German, or Spanish.

Students pursuing this option for the degree in Modern Language need a minor.

For the language emphasized, either French, German or Spanish, students must complete a minimum of 27 hours of course work and the three (3) credit hour Senior Experience after the core curriculum. No more than 12 hours may be taken at the 2000 level.

2003-2004 College Catalog

The core curriculum of 12 hours in the chosen 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
<i>Subtotal</i>	12

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
<i>Subtotal</i>	12

Spanish

SPA 2110 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	3
SPA 2310 Spanish Grammar and Composition I	3
SPA 2320 Spanish Grammar and Composition II	3
<i>Subtotal</i>	12

The remaining 30 hours to complete the 42 hours required must be taken with departmental approval and include the following:

Advanced Language courses (3000 level) (1)	
French.....	9
German.....	9
Spanish.....	6

Advanced language courses (4000 level) (2)	
French.....	3
German.....	3
Spanish.....	6

Literature/culture courses (3000/4000 level) (3)...	15
Senior Experience (4).....	3
<i>Total</i>	42

1)Advanced Language Courses (3000 level):

French-FRE 3150, FRE 3310, FRE 3320

German-GER 3010, GER 3150, GER 3300

Spanish-SPA 3110, SPA 3140

2)Advanced language courses (4000 level)

French-FR 4010 taught by UCD

German-GER 4020, GER 4210

Spanish-SPA 4010, SPA 4020

3)Literature/Culture courses

French-FRE 3110, FRE 3120, FRE 3550, FRE 3560, FRE 4520, FRE 4530, FRE 4750

German-GER 3050, GER 3200, GER 3210, GER 3220, GER 3230, GER 4200

Spanish-Maximum of 6 credit hours of culture and minimum of 9 credit hours of literature from SPA 3050, SPA 3200, SPA 3210, SPA 3220, SPA 3250, SPA 3400, SPA 3410, SPA 3510, SPA 3600, SPA 4110, SPA 4120, SPA 4130

2003-2004 College Catalog

4) Senior Experience course

French-FRE 4520, FRE 4530, student teaching

German-GER 4200, GER 4400, GER 4410, student teaching

Spanish-SPA 4200, SPA 4310, student teaching

Students preparing for teacher licensure should include the courses listed under Option II teacher licensure for their language. They must complete three credits of MDL 4960–Teaching Foreign Languages in the Secondary Schools.

Option II

This Modern Languages major option requires a minimum of 60 hours in a combination of two modern languages: French-German, German-Spanish, Spanish-French.

Students pursuing this option for the degree of Modern Languages do not need a minor.

For the language emphasized, either French, German or Spanish, students must complete a minimum of 42 hours of course work at the 2000-level or above. No more than 12 hours may be taken at the 2000 level. 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 each of the second languages 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 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	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.

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.

Teacher Licensure

For students seeking teacher licensure in modern languages (French, German, Spanish), the courses in one of the following concentrations are required.

2003-2004 College Catalog

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 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	3
SPA 2310 Spanish Grammar and Composition I	3
SPA 2320 Spanish Grammar and Composition II	3

2003-2004 College Catalog

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

Spanish Concentration for Teacher Licensure-Elementary Education

SPA 2120 Spanish Reading and Conversation II.....	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.....	3
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 Survey of Latin American Literature	3
SPA 4010 Advanced Spanish Writing and Grammar I	3
SPA 4020 Advanced Spanish Writing and Grammar II	3
CHS 3100/SOC 3130 The Chicana/o Community	3
CHS 1020/HIS 1910 History of the Chicana/o in the	
Southwest: 1810 to Present	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

2003-2004 College Catalog

FRE 3550 French Historical Perspectives	
-or-	
FRE 3560 Contemporary Sociocultural Issues	3
French Electives*	3
Total	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
Subtotal.....	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
Subtotal.....	3

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
Subtotal	6
Total	21

**Higher-level course may be substituted with departmental approval.*

***Fourth-year course may be substituted with departmental approval.*

Minor in Spanish

Required Courses.....	Semester Hours
SPA 2110 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	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
Total.....	21

Certificate Programs Available:

Students must complete each course in the certificate program with a grade of “C” or better. The courses cannot be taken pass/fail.

GERMAN TRANSLATION PROGRAM

GER 3300 Advanced German Grammar	3
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2003-2004 College Catalog

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.

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 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	3
SPA 2310 Spanish Grammar and Composition I	3
SPA 2320 Spanish Grammar and Composition II	3

For more information, call Dr. Elizabeth Ordonez, 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 music degree with concentrations in music performance or composition, a bachelor of music education degree, a bachelor of arts degree in music, and a minor in music. Students must attain a grade of “C” or above in all music courses required for any major or minor. Music performance, music composition, and music education are professional degree programs designed for students wishing to prepare themselves for careers as music performers or teachers, and students pursuing these degrees are not required to complete a minor for graduation. Students pursuing a bachelor of arts degree in music are required to complete a minor.

The department also offers courses designed for students wishing to enhance their general understanding and enjoyment of music. In addition, 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, jazz ensembles, and chamber music. 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

2003-2004 College Catalog

capability of developing a high level of musicianship in performance by passing the music performance audition upon completion of MUS 1720, *Private Instruction II*.

The music education degree program prepares students for careers teaching instrumental, choral, and general music at levels K-12. Students seeking this degree must satisfy all applicable requirements of the Department of Music and the School of Professional Studies teacher education program. In addition, students seeking teacher licensure should read the teacher licensure sections of this Catalog, pages 255-268, and stay in regular contact with both a music and teacher education advisor. By taking an additional 12 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 12 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.

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 Department of Music at least two weeks before the beginning of the semester.

Music Education Major for Bachelor of Music Education

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
<i>Subtotal</i>		44-45

*Note: Students whose primary performance area is voice do not need to take Class Voice I.

**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.

Ensemble Requirements

Select 8 hours from the following:*

MUS 2810	Ensemble	1
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2003-2004 College Catalog

MUS 3810 Ensemble	1
Subtotal.....	8

**Note: Students majoring in music education must enroll in the major ensemble in their concentration during each semester of studio instruction or full-time residence, except when student teaching. Additionally, students are encouraged to enroll in a variety of ensembles outside of their major area of study.*

Music Education Courses

MUS 2340 Foundations of Music Education.....	2
MUS 2650 Music Technology for Educators.....	1
MUS 3150 Instrumental and Choral Scoring and Arranging.....	3
MUS 3350 General Music Methods and Materials*.....	2
MUS 3351 Supervised Field Experience for General Music Methods and Materials*.....	1
MUS 3410 String Techniques and Materials.....	1
MUS 3420 Guitar Techniques and Materials.....	1
MUS 3440 Jazz Improvisation and Pedagogy.....	2
MUS 3450 Brass Techniques and Materials.....	1
MUS 3460 Percussion Techniques and Materials.....	1
MUS 3510 Basic Conducting.....	2
MUS 4360 Instrumental Music Methods and Materials*.....	2
MUS 4361 Supervised Field Experience for Instrumental Music Methods and Materials*.....	1
MUS 4370 Vocal Music Methods and Materials*.....	2
MUS 4371 Supervised Field Experience for Vocal Music Methods and Materials*.....	1
Subtotal.....	23

*Note: The following classes are corequisites and must be taken concurrently:
MUS 3350 and MUS 3351; MUS 4360 and MUS 4361; and MUS 4370 and MUS 4371.

Professional Education Courses

EDS 3110 Processes of Education in Multicultural Urban Secondary Schools*.....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools.....	2
EDS 3200 Educational Psychology Applied to Teaching*.....	3
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
SED 3600 The Exceptional Learner in the Classroom.....	3
Subtotal.....	15

**These courses are also General Studies-Level II, Social Sciences.*

In addition, music education majors must select one of the following concentrations:

Choral Concentration

MUS 3520 Choral Conducting and Literature	3
MUS 4420 Vocal Pedagogy	3
Subtotal	6

Instrumental Concentration

MUS 3430 Woodwind Techniques and Materials	1
MUS 3480 Marching Band Techniques and Materials	1

2003-2004 College Catalog

MUS 3530 Instrumental Conducting and Literature	3
<i>Subtotal</i>	5

Total for the Music Education Major.....89-91

General Studies for the Music Education Major

MTH 1610 Integrated Mathematics I (General Studies-Level I, Mathematics).....	4
SPE 1010 Public Speaking.....	3
Additional General Studies classes for the degree*.....	20
<i>Subtotal</i>	27

**See the General Studies section of this Catalog for requirements. Six hours of the professional education sequence can be applied to General Studies, meeting the College requirement of 33 total.*

Core.....	44-45
Ensemble.....	8
Music Education.....	23
Professional Education.....	15
Choral or Instrumental concentration.....	5-6
General Studies.....	27
<i>Total for the B.M.E. in Music Concentration.....</i>	<i>122-124</i>

Student Teaching

To become licensed, recipients of the Bachelors of Music Education degree must complete EDU 4190, EDS 4290, and satisfy all applicable requirements of the teacher education and licensure programs in the School of Professional Studies.

EDU 4190 Student Teaching and Seminar: Elementary K-6.....	6
EDS 4290 Student Teaching and Seminar: Secondary 7-12.....	6
<i>Total</i>	<i>12</i>

Music Performance Concentrations 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 1650 Basic Music Technology.....	1
MUS 3440 Jazz Improvisation and Pedagogy.....	2
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

2003-2004 College Catalog

MUS 3740 Performance VI (Primary Performance Area)	4
MUS 4730 Performance VII (Primary Performance Area)	4
MUS 4740 Senior Recital Performance	4
MUS 3510 Basic Conducting.....	2
MUS 4790 Senior Recital Project.....	1
Subtotal.....	62

Secondary Performance Area

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
Subtotal.....	2

**Must be Class Piano I and II unless student is able to pass the Private Instruction Audition in piano. 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.*

Ensemble Requirements

Select 12 hours from the following:

MUS 2810 Ensemble**	1
MUS 3810 Ensemble**	1
Subtotal.....	12

***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. Additionally, students are encouraged to enroll in a variety of ensembles outside of their major area of study.*

MUS 3510 Basic Conducting	2
MUS 4790 Senior Recital	1
Subtotal.....	3

In addition to the above core requirement, all music performance majors must select one of the following concentrations:

Voice Concentration

MUS 1400 Vocal Diction	3
MUS 4420 Vocal Pedagogy	3
Subtotal	6

Piano Concentration

MUS 3100 Counterpoint	3
MUS 4410 Piano Pedagogy	3
Subtotal	6

Organ Concentration

MUS 3100 Counterpoint.....	3
MUS 3520 Choral Conducting and Literature	3
Subtotal	6

2003-2004 College Catalog

Guitar Concentration

MUS 3100 Counterpoint	3
MUS 3150 Instrumental and Choral Scoring and Arranging	3
<i>Subtotal</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>Subtotal</i>	6

<i>Total for Music Performance Concentrations of the Bachelor of Music</i>	82
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General Studies

SPE 1010 Public Speaking.....	3
Additional General Studies courses for the degree.....	30
<i>Subtotal</i>	33

Core.....	62
Secondary Performance Area.....	2
Ensemble Requirements.....	12
Concentration.....	6
General Studies.....	33
Electives.....	5
<i>Total for B.M. in Music (with a Music Performance Concentration)</i>	120

Music Composition Concentration for Bachelor of Music

Core Requirements.....	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 1650 Basic Music Technology.....	1
MUS 3440 Jazz Improvisation and Pedagogy.....	2
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 3100 Counterpoint.....	3
MUS 3150 Instrumental and Choral Scoring and Arranging.....	3
MUS 3410 String Techniques and Materials.....	1
MUS 3430 Woodwind Techniques and Materials.....	1
MUS 3450 Brass Techniques and Materials.....	1
MUS 3460 Percussion Techniques and Materials.....	1
MUS 3510 Basic Conducting.....	2
MUS 3650 Basic Techniques of Composition.....	2

2003-2004 College Catalog

MUS 3710 Private Instruction V (Composition).....	2
MUS 3730 Performance V (Composition).....	4
MUS 3740 Performance VI (Composition).....	4
MUS 4110 Analysis of Music.....	2
MUS 4950 Senior Project.....	3
<i>Subtotal</i>	68

Performance Area

MUS 161B** Class Piano I.....	1
MUS 162B** Class Piano II.....	1
MUS 261B** Class Piano III.....	1
MUS 262B** Class Piano IV.....	1
<i>Subtotal</i>	4

**If the student is able to pass the Private Instruction Audition in Piano, Private Instruction I and II may be substituted for Class Piano I-IV.*

Ensemble Requirements

Select seven hours from the following:

MUS 2810 Ensemble*.....	1
MUS 3810 Ensemble*.....	1
<i>Subtotal</i>	7

**Note: These course numbers may be repeated for credit. All seven hours may be earned in any one course number or in any combination of the above numbers. Additionally, students are encouraged to enroll in a variety of ensembles outside of their major area of study.*

Conducting Requirement

Choose one from the following:.....3

MUS 3520 Choral Conducting and Literature

MUS 3530 Instrumental Conducting and Literature

Total for the Music Composition Concentration of the Bachelor of Music.....	82
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General Studies for the Bachelor of Music

SPE 1010 Public Speaking.....	3
Additional General Studies courses for the degree.....	30
<i>Subtotal</i>	33

Core.....	68
Performance Area.....	4
Ensemble Requirements.....	7
Conducting/Recital.....	3
General Studies.....	33
Electives.....	5
<i>Total for BM in Music</i>	120

Bachelor of Arts in Music

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

2003-2004 College Catalog

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 161B Class Piano I.....	1
MUS 162B Class Piano II.....	1
<i>Subtotal</i>	38

Ensemble Requirements

Select six (6) hours from the following:*

MUS 2810 Ensemble*.....	1
MUS 3810 Ensemble*.....	1

**Note: These course numbers may be repeated for credit. All 6 hours may be earned in any one course number or in any combination of the above numbers. Additionally, students are encouraged to enroll in a variety of ensembles outside of their major area of study.*

Upper-division elective in Music Theory, History, Literature or Pedagogy.....	3
MUS 4950 Senior Project.....	3
<i>Subtotal</i>	6
<i>Total for Music Major</i>	50

General Studies for Bachelor of Arts in Music

SPE 1010 Public Speaking.....	3
Additional General Studies courses for the degree.....	30
<i>Subtotal</i>	33

Core.....	38
Ensemble Requirements.....	6
Upper-division Courses.....	6
General Studies.....	33
Electives/Minor.....	37
<i>Total for B.A. in Music</i>	120

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 161B Class Piano I.....	1
MUS 162B Class Piano II.....	1
MUS 1210 European Music Literature	3
MUS 1220 World Music Literature	3
MUS 1710 Private Instruction I (Primary Performance Area)	2
MUS 1720 Private Instruction II (Primary Performance Area)	2

2003-2004 College Catalog

Upper-Division Elective in Music Theory, History, Literature, or Pedagogy	3
<i>Subtotal</i>	23

Ensembles

Select two hours from the following:*

MUS 2810 Ensemble*.....	1
MUS 2810 Ensemble*.....	1
<i>Total</i>	25

**Note: These course numbers may be repeated for credit. Ensembles must be chosen from those appropriate to the student's private instruction area.*

<i>Total for Music Minor</i>	25
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Native American Studies Minor

Department of Political Science

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 172).

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 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.

Parent Education Minor—Departments of Human Services and Psychology

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 provide 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. 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 consult an advisor in the Human Services or Psychology Departments.

Required Courses	Semester Hours
EDU 4070 Designing and Implementing Programs for Adult Learners.....	3
HES 3070 Parental Health Care Issues.....	3
HSP 2040 Family Systems.....	4
PAR 2050 Introduction to Parent Education.....	3
PAR 3070 Working with the Contemporary Family.....	3
PAR 4890 Parent Education Field Placement.....	3
PSY 1800 Developmental Educational Psychology	
-or-	
PSY 2210 Psychology of Human Development	
-or-	
PSY 3250 Child Psychology.....	3-4
PSY 2240 Parenting Techniques.....	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 human services, nursing, or psychology, 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.

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 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

2003-2004 College Catalog

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
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

2003-2004 College Catalog

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 course work 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.

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 2321 General Physics I Laboratory	1
PHY 2331 General Physics II*	4
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
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

**Check Mathematics (MTH) prerequisites for these courses.*

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 2321 General Physics I Laboratory	1

2003-2004 College Catalog

PHY 2331 General Physics II*	4
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*	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

**Check Mathematics (MTH) prerequisites for these courses.*

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 mathematics major. These courses should be chosen in consultation with the student's advisor in the Physics Department.

Minor in Physics

Required Courses	Semester Hours
PHY 2311 General Physics I*	4
PHY 2321 General Physics I Laboratory	1
PHY 2331 General Physics II*	4
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

**Check Mathematics (MTH) prerequisites for these courses.*

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, Native American studies minor program.

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,

2003-2004 College Catalog

students may apply only 12 hours of credit in nonclassroom courses toward the major as approved electives.

Subtotal21
Total36

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.

Subtotal12
Total21

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 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
<i>Subtotal</i>	6

Two of the following courses:

ACC 3200 Governmental Accounting	3
PSC 3220 Public Policy	3
PSC 3240 Intergovernmental Relations	3
PSC 3260 Politics of Budgeting	3
PSC 3280 Public Personnel Administration	3
<i>Subtotal</i>	6

One of the following courses:

CMS 2010 Computer Applications for Business	3
MTH 1210 Introduction to Statistics	4
<i>Subtotal</i>	3-4

Internship PSC 4120 or Substitute Course (minimum)	3
<i>Total</i>	18-19

2003-2004 College Catalog

A governmental internship will be required of all students for a minimum of one semester and a minimum of three semester hours.

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 online *Class Schedule* on MSCD's website (<http://www.mscd.edu>) 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.

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

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

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.

Native American Studies Minor, see page 168 of this *Catalog*.

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.

Psychology Major for Bachelor of Arts

Required Courses	Semester Hours
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 Behavioral Neuroscience.....	3
PSY 4390 Psychology of Learning	3

Clinical/Personality

PSY 2160 Personality and Adjustment	3
PSY 3000 Theories of Personality	3

2003-2004 College Catalog

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
Subtotal	12
Total	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.

Subtotal	15
Total Hours Required for the Major	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	

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 course work 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, Behavioral Neuroscience, 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.

In meeting the requirements for the psychology major (described above), transfer students must take a minimum of 15 semester hours of psychology course work 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. If a student has taken only one semester of a two-semester introductory course and takes PSY 1001 at MSCD, the transfer introductory credits will not count toward the degree.

NOTE: The Psychology Department does not count CLEP credit toward the total number of semester hours required for the major or minor; extra course work 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, or PSY 3700, Psychology of Group Prejudice, 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
PSY 1001 Introductory Psychology	3
PSY 2310 Introduction to Statistics for Social and Behavioral Sciences.....	3
<i>Subtotal</i>	6

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, and no more than 3 semester hours may be PSY 3970 Practicum. At least 3 courses (9 semester hours) must be upper division, and 6 of those hours must be taken at MSCD. See also the NOTE in the preceding Psychology Department section.

Human Development Major, see page 141 of this *Catalog*.

Parent Education Minor, see page 169 of this *Catalog*.

The Social Work Department

Social work is a professional practice. The primary educational goal of the major is preparation for generalist social work practice in social agencies. Through professional foundation courses and electives, students acquire skills, knowledge, values, and ethics required for beginning social work practice. A minor is not required for this major.

Statement of the Rationale and Mission—The Social Work Major

The Social Work Department 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.

Goals of the Social Work Program

The goals of the Social Work Department 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.

2003-2004 College Catalog

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.

Accreditation

The social work major is accredited with the Council on Social Work Education and received initial accreditation in February 1997.

Colorado State Licensure (R.S.W.)

Students who graduate with a B.S. in social work from an accredited undergraduate program are eligible to take the Registered Social Work examination in Colorado (R.S.W.). This establishes undergraduate social work graduates as professionals and differentiates social workers from other majors. Please see the Social Work Department's web page for further information on the R.S.W.

Advanced Standing in Graduate School

Students who graduate with a BS in social work 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.

The Social Work Major for Bachelor of Science

Liberal Arts Perspective Courses

Social work majors are required to take the following courses outside the Social Work Department in preparation for the major. All courses must be completed with a grade of "C" or better. Students must have completed or must indicate at the time of admission, the plan to complete these courses prior to the fall semester for which students have been accepted:

Required Courses.....	Semester Hours
ANT 1310 Introduction to Cultural Anthropology.....	3
BIO 1000 Human Biology for Non-Majors.....	3
-or-	
BIO 2310 Human Anatomy and Physiology.....	4
MTH 1210 Introduction to Statistics.....	4
PSC 1010 American National Government.....	3
PSY 1001 Introductory Psychology.....	3
SOC 1010 Introduction to Sociology.....	3
SPE 1010 Public Speaking	
-or-	
SPE 1710 Interpersonal Communication.....	3

Many of the above courses will also fulfill General Studies requirements for graduation.

Core Curriculum

Required Courses.....	Semester Hours
Introductory Social Work Courses (required before applying for acceptance into the Social Work Major):	
SWK 1010 Introduction to Social Welfare and Social Work.....	3
SWK 1020 Introduction to Agency Experience.....	1

2003-2004 College Catalog

Professional foundation courses (required after students have been accepted into the Social Work Major):

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.....	3
SWK 4410 Advanced Cross-cultural Social Work Issues.....	4
SWK 4850 Integrative Seminar.....	3
<i>Subtotal</i>	35

Areas of Career Concentration for Social Work Majors

Social work majors may select one area of concentration to further prepare them for their career goals. The areas of concentration relate to groups identified in the Social Work Department's mission statement: women and children, gays and lesbians, the aging and the developmentally disabled.

All social work majors must complete the required introductory and professional foundation courses for the major as previously listed. To complete a career concentration, students must complete the elective credits as listed for each concentration area and must complete their senior field experience in an agency serving the concentration population. The total credits for all career concentration areas are 19, nine social work elective credits and 10 professional field experience credits as listed below. Students may complete only one concentration area.

No Area of Concentration

Social work majors who do not wish to select a concentration to focus their career must select a minimum of nine credit hours from any of the social work major, 3000 or upper-division elective courses listed below for the concentrations. Students who do not select a concentration should register for all courses using the number 0 as the fourth digit of the course rather than a letter A-G.

Required Courses.....	Semester Hours
Social Work Core.....	35
Social Work Electives.....	9
SWK 4790 Professional Field Experience I.....	5
SWK 4810 Professional Field Experience II.....	5
<i>Total</i>	54

Child Welfare Concentration

Social workers assume primary roles in providing intake and ongoing services in all areas of child welfare. The child welfare concentration is designed for students choosing a career as a caseworker and/or supervisor in child welfare services. (Non-majors must have permission of the Social Work Department Chair before enrolling in these courses.)

Required Courses.....	Semester Hours
Social Work Core.....	35
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 479A Professional Field Experience I*.....	5
SWK 481A Professional Field Experience II*.....	5
<i>Total</i>	54

**Must be in a public agency providing child welfare services.*

Since 1995 over \$1,000,000 in Child Welfare Caseworker stipends through the Colorado Department of Human

Services have been awarded to MSCD seniors who are social work majors and who have completed the child welfare career concentration courses. Stipends in the amount of \$14,000 are awarded to select recipients who are required to complete their professional field experience in a public child welfare agency. A required work pay-back of one year as a paid caseworker in public child welfare must be completed following graduation as a social work major.

Developmental Disabilities Concentration

Families with children and/or parents with developmental disabilities are often in need of ongoing family supports. Family support, family-centered service planning and coordination are needed as families negotiate a complex and fragmented service delivery system. This career concentration is designed for students choosing a career in the area of developmental disabilities services.

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300B Applied Legal Issues in Social Work.....	1
SWK 302B Case Management in Social Work Practice	
-or-	
SWK 345B Mutual Aid Groups in Social Work	
-or-	
SWK 340B Social Work Macro Practice.....	4
SWK 3250 Social Work and Developmental Disabilities.....	3
SWK 3300 Social Work with Parents with Developmental Disabilities..	1
SWK 479B Professional Field Experience I*.....	5
SWK 481B Professional Field Experience II*.....	5
Total.....	54

** Must be in an agency providing developmental disability services.*

Early Intervention Concentration

This concentration recognizes the importance of providing, safe, nurturing and stimulating environments during the early, crucial phases of child development from birth through five years of age and the key role social workers have in assisting families in achieving these goals. This concentration is designed for students choosing a career in the area of infant stimulation, early intervention and early education services.

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300C Applied Legal Issues in Social Work.....	1
SWK 302C Case Management in Social Work Practice	
-or-	
SWK 345C Mutual Aid Groups in Social Work	
-or-	
SWK 340C Social Work Macro Practice.....	4
SWK 3700 Social Work and Early Intervention: Children Birth-Five..	4
SWK 479C Professional Field Experience I*.....	5
SWK 481C Professional Field Experience II*.....	5
Total.....	54

**Must be completed in an agency providing early intervention services.*

Child and Adolescent Mental Health Concentration

Social workers often support families and provide services to children and adolescents with an array of emotional and behavioral problems. Mental health policies and practices including assessment, diagnosis, intervention and evaluation of mental health services for children and their families will be presented from a social work perspective. This concentration is designed for students choosing a career in the area of mental health services for children and adolescents.

2003-2004 College Catalog

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300D Applied Legal Issues in Social Work.....	1
SWK 3010 Social Work Services for Children and Adolescents.....	4
SWK 302D Case Management in Social Work Practice	
-or-	
SWK 345D Mutual Aid Groups in Social Work	
-or-	
SWK 340D Social Work Macro Practice.....	4
SWK 479D Professional Field Experience I*.....	5
SWK 481D Professional Field Experience II*.....	5
Total.....	54

**Must be in an agency providing child and adolescent mental health services.*

Gay and Lesbian Concentration

There are many challenges facing gay and lesbian individuals, families and groups in today's society. The strengths, stresses and life style choices of this population at risk and the role of social workers with individuals, families, groups, organizations and communities are the major themes of this area. The gay and lesbian career concentration is designed for students choosing a career in gay and lesbian health, mental health and community services.

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300E Applied Legal Issues in Social Work.....	1
SWK 302E Case Management in Social Work Practice	
-or-	
SWK 345E Mutual Aid Groups in Social Work	
-or-	
SWK 340E Social Work Macro Practice.....	4
SWK 3500 Foundations for Social Work Practice	
with Gays and Lesbians.....	4
SWK 479E Professional Field Experience I*.....	5
SWK 481E Professional Field Experience II*.....	5
Total.....	54

**Must be in an agency providing services to gays and lesbians.*

Women Concentration

In today's society, there is an increasing awareness of the need for specialized generalist social work training and commitment to assisting women in overcoming barriers, identifying strengths and supporting goal attainment in a patriarchal society. Social policies and common issues facing women today are explored. Current social work strategies are evaluated from a feminist social work perspective. This concentration is designed for students choosing a career in the area of women's health, mental health and welfare services.

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300F Applied Legal Issues in Social Work.....	1
SWK 302F Case Management in Social Work Practice	
-or-	
SWK 345F Mutual Aid Groups in Social Work	
-or-	
SWK 340F Social Work Macro Practice.....	4
SWK 3600 Social Work with Women.....	4
SWK 479F Professional Field Experience I*.....	5

2003-2004 College Catalog

SWK 481F Professional Field Experience II*.....	5
<i>Total</i>	54

**Must be in an agency providing health, mental health or welfare services to women.*

Aging Concentration

Social workers provide a variety of supports and services to elderly individuals and their families. Individual needs, strengths, family supports, use of community resources and knowledge of social policies that impact this population are the major themes. This concentration is designed for students choosing a career in aging, health, mental health, home health, and long term care services.

Required Courses.....	Semester Hours
Social Work Core.....	35
SWK 300G Applied Legal Issues in Social Work.....	1
SWK 302G Case Management in Social Work Practice	
-or-	
SWK 345G Mutual Aid Groups in Social Work	
-or-	
SWK 340G Social Work Macro Practice.....	4
SWK 3030 Social Work with the Aging.....	4
SWK 479G Professional Field Experience I*.....	5
SWK 481G Professional Field Experience II*.....	5
<i>Total</i>	54

**Must be in an agency providing geriatric services.*

Multicultural Requirement

Social work majors are required to take two multicultural classes outside the Social Work Department. 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 Department at 303-556-3474.

Admission of Social Work Majors

Students should declare social work as their major when they enter MSCD. To complete the major, students must apply to the Social Work Department for acceptance into the major. Students should have completed or be enrolled in the liberal arts perspective courses and the introductory social work courses when applying for the social work major. 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–Social Work Major

There is no credit given for college level learning gained through life experience that may be used toward the social work major.

MINOR IN FAMILY SUPPORT IN SOCIAL WORK and CERTIFICATE OF COMPLETION IN FAMILY SUPPORT IN SOCIAL WORK

The Family Support in Social Work Minor/Certificate of Completion provides knowledge and understanding of family systems theory and family life developmental models. It provides the basis for supporting traditional and non-traditional families, including case management and service coordination in a variety of service delivery areas. An approved agency field experience of 135 hours is required and may be completed in the student's work setting or as a volunteer.

The minor/certificate of completion recognizes the completion of a selected set of courses that focus on a particular

2003-2004 College Catalog

career concentration that supports families through social work principles and practices. It is designed for professionals and beginning professionals wishing to enter the field or to enhance their family social work support skills.

The Family Support in Social Work Certificate of Completion is the same as the Family Support in Social Work Minor but does not require that students complete a degree. All information about the Family Support in Social Work Minor applies to the certificate of completion. Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

The minor students are referred to as beginning professionals. (Social work majors are referred to as generalist social workers.) The knowledge and skills of minor students will enable them to perform important agency roles such as case aides, paraprofessionals, service coordinators, parent educators, parent advocates, home visitation specialists, etc. These courses are open to other MSCD minors, majors and non-degree-seeking students wishing to supplement their education.

In addition to completing the required courses listed below, minors must select one concentration and complete the concentration course(s) including SWK 3990–Agency Experience II in an agency serving the concentration population. Minors may complete only one concentration.

Concentrations are:

- A. Family Preservation Services
- B. Developmental Disabilities Services
- C. Early Intervention Services: Birth through Five
- D. Child and Adolescent Mental Health Services
- E. Gay and Lesbian Services
- F. Women's Services
- G. Aging Services

Family Support in Social Work Minor–Core Curriculum

Required Courses

SWK 1010 Introduction to Social Work and Social Welfare.....	3
SWK 1020 Introduction to Agency Experience.....	1
SWK 2100 Introduction to Family Social Work.....	3
SWK 2150 Social Work: The Helping Process.....	3
SWK 2160 Record Keeping for Public and Private Agencies.....	1
<i>Total.....</i>	<i>11</i>

Concentrations for Family Support in Social Work Minors

A. Family Preservation Services

Family Support in Social Work Core.....	11
SWK 300A Applied Legal Issues in Social Work.....	1
SWK 302A Case Management in Social Work Practice.....	4
SWK 3300 Social Work with Parents with Developmental Disabilities.....	1
SWK 3800 Family Preservation in Social Work.....	3
SWK 399A Agency Experience II*.....	4
<i>Total.....</i>	<i>24</i>

**Must be agency providing family preservation services.*

Case Aid Child Welfare stipends provided by the Colorado Department of Human Services have been awarded since 2000 to current public child welfare employees who are enrolled in the Family Support in Social Work Minor/Certificate of Completion Program. Stipends in the amount of \$3,000 are awarded to selected recipients who are required to complete SWK 399A–Agency Experience II in public child welfare agencies. A required work pay-back of one year as a paid worker in public child welfare must be completed following completion of the Family Support in Social Work Minor/Certificate of Completion Program.

B. Developmental Disabilities Services

Family Support in Social Work Core.....	11
SWK 300B Applied Legal Issues in Social Work.....	1
SWK 302B Case Management in Social Work Practice.....	4
SWK 3250 Social Work and Developmental Disabilities.....	3
SWK 3300 Social Work with Parents with Developmental Disabilities.....	1
SWK 399B Agency Experience II*.....	4
Total.....	24

**Must be completed in an agency providing developmental disability services.*

C. Early Intervention Services

Family Support in Social Work Core.....	11
SWK 300C Applied Legal Issues in Social Work.....	1
SWK 302C Case Management in Social Work Practice.....	4
SWK 3700 Social Work and Early Intervention: Children Birth - Five.....	4
SWK 399C Agency Experience II*.....	4
Total.....	24

**Must be completed in an agency providing early intervention services.*

D. Child and Adolescent Mental Health Services

Family Support in Social Work Core.....	11
SWK 300D Applied Legal Issues in Social Work.....	1
SWK 3010 Social Work for Children and Adolescents.....	4
SWK 302D Case Management in Social Work Practice.....	4
SWK 399D Agency Experience II*.....	4
Total.....	24

**Must be in an agency providing child and adolescent mental health services.*

E. Gay and Lesbian Services

Family Support in Social Work Core.....	11
SWK 300E Applied Legal Issues in Social Work.....	1
SWK 302E Case Management in Social Work Practice.....	4
SWK 3500 Foundations for Social Work Practice with Gays and Lesbians...	4
SWK 399E Agency Experience II*.....	4
Total.....	24

**Must be in an agency providing services to gays and lesbians.*

F. Women's Services

Family Support in Social Work Core.....	11
SWK 300F Applied Legal Issues in Social Work.....	1
SWK 302F Case Management in Social Work Practice.....	4
SWK 3600 Social Work with Women.....	4
SWK 399F Agency Experience II*.....	4
Total.....	24

**Must be in an agency providing health, mental health or welfare services to women.*

G. Aging Services

Family Support in Social Work Core.....	11
SWK 300G Applied Legal Issues in Social Work.....	1
SWK 302G Case Management in Social Work Practice.....	4

2003-2004 College Catalog

SWK 3030 Social Work with the Aging.....	4
SWK 399G Agency Experience II*.....	4
Total.....	24

**Must be in an agency providing geriatric services.*

Enrollment and Completion Requirements for Family Support in Social Work Minor and Certificate of Completion Program

All minor and certificate students must submit an Enrollment Packet to the Social Work Department prior to course registration. The Enrollment Packet consists of the application forms, a writing sample and a letter of recommendation form. Students will receive written acceptance from the Social Work Department.

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

All minor students must receive course grades of "C" or better and must have a grade point average of 2.5 or above in the courses that compose the Family Support in Social Work Minor to successfully complete it.

Credit for Prior Learning Option

After successful completion of special examinations, a prior learning portfolio and/or documentation of previously completed community-based training(s), Family Support in Social Work Minors and Certificate of Completion students may be awarded credit for:

SWK 2150 Social Work: The Helping Process.....	3
SWK 2160 Record Keeping for Public and Private Agencies.....	1

Changing from the Social Work Minor or Certificate to the Social Work Major

Family Support in Social Work Minors and Certificate of Completion students who wish to continue into the social work major may count 13 of the 24 required credits courses toward the major: SWK1010, SWK1020, SWK3000, SWK3020, and the emphasis course(s). The remaining 11 credits would count toward the 120 credits required of all students graduating from MSCD.

Sociology

Department of Sociology and Anthropology

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 and Anthropology 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
Total	15

2003-2004 College Catalog

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
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 and Anthropology 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
HES 1050 Dynamics of Health	3
NUT 2040 Introduction to Nutrition	3
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
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

2003-2004 College Catalog

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
SPE 4760 Communication and the Elderly	3
SWK 3030 Social Work with the Aging	4
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 Chicana/o 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 (see Modern Languages with a Concentration in Spanish on page 158 of this *Catalog*.)

Speech Communication Program

Department of Communication Arts and Sciences

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 Speech, Language, Hearing Sciences provides sound background for students pursuing careers in education, vocational rehabilitation and health care. Graduates can obtain the prerequisite course work 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.

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.

Professional and educational theatre occupations are open to graduates in Theatre with specialties in applied theatre technologies, stage management, music theatre, directing, and acting. The Theatre Program is housed in the Department of Communication Arts and Sciences. Please see "Theatre" for degree requirements.

Speech Communication Major for Bachelor of Arts

- 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 Department of Communication Arts and Sciences.
- Independent study, topic courses, and experiential education courses such as practicums and internships may be taken in each of the program areas.

Required Basic Core Courses	Semester Hours
SPE 1010 Public Speaking	3
SPE 3740 Psychology of Communication	3

2003-2004 College Catalog

THE 3200 Oral Interpretation	3
<i>Total</i>	9

Broadcast Journalism Concentration

Required Courses	Semester Hours
Basic Core	9
JRN 1010 Introduction to Journalism and Mass Media	
-or-	
SPE 2400 Introduction to Radio and Television Broadcasting...	3
JRN 1100 Beginning Reporting.....	3
JRN 1200 Beginning Editing.....	3
JRN 2100 Intermediate Reporting.....	3
JRN 4500 Ethical and Legal Issues in Journalism	
(Senior Experience).....	3
COM 2450 Basic Multimedia Production.....	3
SPE 3440 Television Production.....	3
SPE 3450 Broadcast Journalism: Radio.....	3
SPE 3981 Cooperative Education: Broadcast Journalism.....	3
SPE 4450 Broadcast Journalism: Television.....	3
<i>Total</i>	39

Broadcast Performance Concentration

Required Courses	Semester Hours
Basic Core.....	9
JRN 1010 Introduction to Journalism and Mass Media	
-or-	
SPE 2400 Introduction to Radio and Television Broadcasting...	3
SPE 3430 Radio-Television Announcing.....	3
SPE 3440 Television Production.....	3
SPE 3460 Audio Production.....	3
SPE 3982 Cooperative Education: Broadcast Performance.....	3-6
THE 2201 The Speaking Voice in Performance.....	2
THE 4200 Reader's Theatre (Senior Experience).....	3
<i>Subtotal</i>	29-32

Elective Courses (choose two to three courses)

SPE 3480 Workshop in Radio Production.....	3
SPE 4440 Advanced Television Production.....	3
THE 2220 Techniques of Acting I.....	3
THE 2230 Techniques of Acting II.....	3
<i>Total</i>	35-38

Broadcast Production Concentration

Required Courses	Semester Hours
Basic Core.....	9
JRN 1010 Introduction to Journalism and Mass Media	
-or-	
SPE 2400 Introduction to Radio and Television Broadcasting...	3
COM 2400 Basic Video Editing.....	3
COM 2420 Basic Corporate Videotape Production.....	3
SPE 3440 Television Production.....	3
SPE 3480 Workshop in Radio Production.....	3
SPE 3983 Cooperative Education: Broadcast Production.....	3-9
SPE 4120 Freedom of Speech (Senior Experience).....	3

2003-2004 College Catalog

SPE 4440 Advanced Television Production.....	3
<i>Subtotal</i>	33-39

Elective Courses (choose one to three courses)

SPE 3430 Radio-Television Announcing.....	3
SPE 3460 Audio Production.....	3
SPE 4470 TV Criticism: Production and Content.....	3
SPE 4480 Seminar Practicum in Broadcasting.....	3
THE 2240 Introduction to Stagecraft.....	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
SPE 2710 Team and Group Communication	3
SPE 2730 Communication and Conflict	3
SPE 2770 Gender and Communication	3
SPE 3010 Advanced Public Speaking	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

2003-2004 College Catalog

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
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

Speech, Language, Hearing Sciences Concentration

Required Courses (for both Option A and Option B)	Semester Hours
BIO 2310 Human Anatomy and Physiology I	4
SPE 2530 Voice Science: Pathology and Technology	3
SPE 2890 Language Acquisition	3
SPE 3500 Anatomy and Physiology of the Speech and Hearing Mechanism*	3
BIO 3501 Anatomy and Physiology of the Speech and Hearing Mechanism Lab*	1
SPE 3540 Phonetics and Language Sample Analysis	3
SPE 3600 Audiology I	3
SPE 3740 Psychology of Communication	3
THE 3200 Oral Interpretation	3
<i>Subtotal</i>	26

**SPE 3500/3501 are crosslisted with BIO 3500/3501. Please register for SPE 3500 (lecture) and BIO 3501 (lab). SPE 1010 (Public Speaking) is a prerequisite to THE 3200, SPE 2530, SPE 2890, and SPE 3740. BIO 1080 and 1090 (General Introduction to Biology and Lab) are prerequisites for BIO 2310. These courses are required for this major and may be used to fulfill General Studies requirements.*

Additional Requirements

Option A: Recommended for students who plan to pursue a master's degree in speech-language pathology or audiology.

2003-2004 College Catalog

SPE 3580 Speech Disorders: Articulation and Stuttering.....	3
SPE 3620 Aural Rehabilitation.....	3
SPE 4500 Clinical Methods in Communication Disorders.....	3
SPE 4510 Language Disorders.....	3
<i>Subtotal.....</i>	<i>12</i>

Elective Courses (4 hours required for students electing Option A)

SPE 1500 Introduction to Communication Disorders.....	3
SPE 1610 American Sign Language I.....	3
SPE 1620 American Sign Language II.....	3
SPE 3570 Diagnostic Procedures in Communication Disorders.....	3
SPE 3590 Classroom Intervention for Communication Disorders...	3
SPE 3610 Audiology II.....	2
SPE 4550 Clinical Practicum and Seminar in Communication Disorders.....	2-6
SPE 4570 Medical Aspects of Communication Disorders.....	2
<i>Subtotal.....</i>	<i>4</i>
<i>Total required for Option A.....</i>	<i>42</i>

Option B: Designed for students who are seeking licensure in [Early Childhood, Elementary](#) and/or [Special Education](#).

SPE 3570 Diagnostic Procedures in Communication Disorders.....	3
SPE 3590 Classroom Intervention for Communication Disorders...	3
SPE 4500 Clinical Methods in Communication Disorders.....	3
<i>Subtotal.....</i>	<i>9</i>
Elective Courses (3 hours required for students electing Option B)	
PSY 3340 Cognitive Development and Learning.....	3
SED 3600 The Exceptional Learner in the Classroom.....	3
SPE 1500 Introduction to Communication Disorders.....	3
SPE 1610 American Sign Language I.....	3
SPE 1620 American Sign Language II.....	3
SPE 3580 Speech Disorders: Articulation and Stuttering.....	3
SPE 3620 Aural Rehabilitation.....	3
SPE 4510 Language Disorders.....	3
<i>Subtotal.....</i>	<i>3</i>
<i>Total required for Option B.....</i>	<i>38</i>

Students who obtain all required licensure course work at MSCD may complete a Speech Communication: Speech, Language, Hearing Sciences major in 38 credit hours. A 42-credit hour major is required in the Speech, Language, Hearing Sciences concentration for nonlicensure students.

Theatre Concentration

This concentration has been replaced by a theatre major -- see Theatre Major.

Minors in Speech Communication

Students seeking a speech communication minor are required to take a minimum of 21 semester hours, 12 of which must be upper division.

Students seeking a speech, language, hearing sciences or theatre minor are required to take a minimum of 21 semester hours, nine of which must be upper division.

Speech Communication Minor

Required Courses.....	Semester Hours
SPE 3740 Psychology of Communication.....	3
THE 3200 Oral Interpretation.....	3

2003-2004 College Catalog

Electives*	15
Total Required for Speech Communication Minor	21

**Elective hours (total of 15 semester hours including 6 upper-division hours) taken beyond the core are to be determined in consultation with a Speech Communication advisor.*

SPE 1010–Public Speaking is a prerequisite to THE 3200 and SPE 3740. This course is required for all Speech Communication minors. SPE 1010 **cannot** be counted towards the 21 credits required for this minor; however, it may be used to fulfill General Studies requirements.

Minor in Speech, Language, Hearing Sciences

Required Courses	Semester Hours
SPE 2890 Language Acquisition	3
SPE 1500 Introduction to Communication Disorders	
-or-	
SPE 3590 Classroom Intervention for Communication Disorders	3
Subtotal	6

Select at least 3 hours from the following list

SPE 3500 Anatomy and Physiology of the Speech and Hearing Mechanism	3
BIO 3501 Anatomy & Physiology of the Speech & Hearing Mechanism Lab	1
SPE 2530 Voice Science: Pathology and Technology	3
SPE 3600 Audiology I	3
Subtotal	3

Suggested Speech, Language, Hearing Sciences elective courses (total of 12 credit hours; 3-9 must be upper-division as 9 upper-division credits are required for the minor).

SPE 1610 American Sign Language I	3
SPE 1620 American Sign Language II	3
SPE 3570 Diagnostic Methods in Communication Disorders	3
SPE 3620 Aural Rehabilitation	3
SPE 4510 Language Disorders	3
SPE 4550 Clinical Practicum in Communication Disorders	2-6
Total	21

Additional elective courses are available and may be chosen and approved in consultation with an advisor in the Department of Communication Arts and Sciences: Speech, Language, Hearing Sciences concentration.

SPE 1010 Public Speaking is a prerequisite to SPE 2530, SPE 2890, and SPE 3600. This course is required for all Speech Communication minors. SPE 1010 **cannot** be counted towards the 21 credits required for this minor; however, it may be used to fulfill General Studies requirements.

Theatre

Department of Communication Arts and Sciences

The Theatre degree program prepares students to pursue a wide range of career options in theatre, entertainment industries, and other related fields. The flexibility offered by the BA or B.F.A. tracks allows students to pursue a major that best meets their goals.

Students who pursue a BA in Theatre must also complete a minor. The B.F.A. in Theatre is a professional course of study that provides specialized training in music theatre or applied theatre technology and design. The BFA in Theatre does not require a minor. Please see additional admission requirements listed under the BFA in Theatre.

Further information, including procedures and requirements, may be obtained from the department.

Students considering a major or minor in Theatre should consult with faculty for advising.

2003-2004 College Catalog

Required Basic Core Courses for all Theatre Majors

Required Courses.....	Semester Hours
ENG 1120 Introduction to Drama.....	3
THE 2201 The Speaking Voice in Performance.....	2
THE 2210 Introduction to Theatre.....	3
THE 2220 Techniques of Acting I.....	3
THE 2240 Introduction to Stagecraft.....	3
THE 3200 Oral Interpretation.....	3
THE 3280 Stage Directing.....	3
THE 4200 Reader's Theatre (Senior Experience).....	3
THE 4260 Theatre: Practicum I.....	1

Pooled Courses from University of Colorado-Denver (UCD)

THTR 3610 Theatre Development I (Theatre History).....	3
THTR 4610 Theatre Development II (Theory and Criticism).....	3
<i>Subtotal</i>	30

Theatre Major for Bachelor of Arts (BA)

Required Courses.....	Semester Hours
Basic Core.....	30
Elective Courses	
THE 2980 Beginning Internship: Theatre.....	1-12
THE 3220 Stage Movement.....	3
THE 3240 Theatre Improvisation Techniques.....	3
THE 3980 Advanced Internship: Theatre.....	1-12
THE 4210 Variable Topics in Theatre (maximum of 9 credit hours).....	1-3
THE 4220 Creative Dramatics for the Classroom Teacher.....	3
<i>Subtotal of Electives*</i>	12

**Additional Theatre and Art courses, including internships, may be selected in consultation with an approved theatre advisor within the Department of Communication Arts and Sciences.*

Summary of Hours required for BA in Theatre:

BA Core.....	30
BA Electives.....	12
<i>Total for the Major</i>	42
Other Graduation Requirements:	
General Studies and Multicultural.....	33-36
Minor.....	18-29
Electives.....	13
<i>Total for the BA in Theatre</i>	120

Theatre Major for Bachelor of Fine Arts (BFA)

To be admitted to the bachelor of fine arts in Theatre with a concentration in Music Theatre degree program, students must demonstrate the capability of developing a high level of skill in music theatre performance by passing the music theatre performance audition for a jury panel. Students admitted to the bachelor of fine arts program are NOT required to complete a minor.

To be admitted to the bachelor of fine arts in Theatre with a concentration in Applied Theatre Technology and Design degree program, students must demonstrate a high level of skill by submitting a portfolio for a jury panel. Further information, including examination policies, procedures, and requirements is provided in the department publication regarding bachelor of fine arts admission and completion policies.

2003-2004 College Catalog

Students in the bachelor of arts in Theatre major may apply to either of the BFA Theatre majors by successfully completing the BFA admission requirements.

Required Courses for all BFA Theatre Majors

Required Courses.....	Semester	Hours
Basic Core.....	30	
ART 1040 Art Appreciation Survey.....	3	
ENG 1120 Introduction to Drama.....	3	
THE 2260 Music Theatre History and Performance.....	3	
THE 2270 Production Analysis: Process and Technology.....	3	
THE 3980 Advanced Internship: Theatre.....	6	
THE 4270 Theatre: Practicum II.....	2	
<i>Subtotal.....</i>	<i>47</i>	

Theatre Major for Bachelor of Fine Arts with a Concentration in Music Theatre (MT)

Required Courses.....	Semester	Hours
HPL 1160 Jazz Level I.....	2	
HPL 1240 Tap Dance I.....	2	
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 161B Class Piano I.....	1	
MUS 162B Class Piano II.....	1	
MUS 171A Private Voice I.....	2	
MUS 172A Private Voice II.....	2	

Select 2 hours from the following:

MUS 2810* Ensemble.....	1
MUS 3810* Ensemble.....	1

THE 2230 Techniques of Acting II.....	3
THE 3220 Stage Movement.....	3
THE 3230 Acting III: Styles of Acting.....	3
<i>Subtotal.....</i>	<i>29</i>

**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.*

Elective Courses Semester Hours

Additional Theatre and Arts-related courses, including internships, may be selected in consultation with an approved Theatre advisor within the Department of Communication Arts and Sciences.

Total electives for the BFA in Music Theatre.....4

Summary of hours required for the BFA in Theatre with a concentration in Music Theatre:

BFA Core.....	47
BFA Required Courses.....	29
BFA Electives.....	4
<i>Total hours for the Major with a Concentration in Music Theatre..</i>	<i>80</i>

Theatre Major for Bachelor of Fine Arts with a Concentration in Applied Theatre Technology and Design (ATTD)

Required Courses.....	Semester	Hours
ART 1100 Basic Drawing I.....	3	

2003-2004 College Catalog

IND 1430 Industrial Drawing.....	2
THE 2250 Stage Management.....	3
THE 3250 Introduction to Production Design and Scenography....	3
THE 3270 Introduction to Stage Lighting and Sound.....	3
<i>Subtotal</i>	14

Elective Courses (19 credit hours)

THE 3210 Scene Painting.....	3
THE 4210 Variable Topics in Theatre (maximum of 9 credit hours).....	1-3
THE 4240 Advanced Stage Craft and Applied Scene Technology....	3
THE 4250 Advanced Scene Design: Applied Technology.....	3
THE 4280 Advanced Lighting: Applied Technology and Design....	3
THE 4290 Advanced Sound: Applied Technology and Design.....	3

Pooled Courses from University of Colorado-Denver (UCD)

THTR 2740 Costume Design and Make-Up.....	3
THTR 3720 Advanced Lighting Design.....	3
THTR 4730 Advanced Scene Design.....	3
THTR 4760 Topics in Design.....	3
<i>Subtotal of Electives*</i>	19

**Additional Theatre and Arts-related courses including internships may be selected in consultation with an approved Theatre advisor within the Department of Communication Arts and Sciences.*

Summary of hours required for the BFA in Theatre with a concentration in Applied Theatre Technology and Design:

BFA Core.....	47
BFA Required Courses.....	14
BFA Electives.....	19
<i>Total hours for the Major with a Concentration in ATTD</i>	80
Other Graduation Requirements:	
General Studies and Multicultural.....	33-36
Electives.....	4-7
<i>Total for the BFA in Theatre</i>	120

Minor in Theatre

Required Courses.....	Semester Hours
THE 2210 Introduction to Theatre.....	3
THE 2220 Techniques of Acting I.....	3
THE 2240 Introduction to Stagecraft.....	3
THE 3280 Stage Directing.....	3
<i>Subtotal</i>	12

Suggested Theatre elective courses (total of nine credit hours; six hours must be upper division):

THE 2201 The Speaking Voice in Performance.....	2
THE 2230 Techniques of Acting II.....	3
THE 2250 Stage Management.....	3
THE 3200 Oral Interpretation.....	3
THE 3210 Scene Painting.....	3
THE 3230 Acting III: Styles of Acting.....	3
THE 3240 Theatre Improvisation Techniques.....	3
THE 3250 Introduction to Production Design and Scenography....	3
THE 4200 Reader's Theatre.....	3
THE 4220 Creative Dramatics for the Classroom Teacher.....	3

2003-2004 College Catalog

THE 4240 Advanced Stage Craft and Applied Scene Technology....	3
THE 4260 Theatre: Practicum I.....	1
THE 4270 Theatre: Practicum II.....	2
Total.....	21

Additional elective theatre courses are available through this and other MSCD departments and may be chosen and approved in consultation with an advisor in Communication Arts and Sciences.

SPE 1010- Public Speaking is a prerequisite to THE 4220, THE 2210 and THE 3200. This course is required for all Speech Communication minors. SPE 1010 **cannot** be counted towards the 21 credits required for this minor; however, it may be used to fulfill General Studies requirements.

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 US 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 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

2003-2004 College Catalog

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 US 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. 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 *Class Schedule* located online on MSCD's website (<http://www.mscd.edu>) 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* located online on MSCD's website (<http://www.mscd.edu>) 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:

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

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

2003-2004 College Catalog

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.

Mission:

The School of Professional Studies supports Metropolitan State College of Denver's primary objectives of teaching and learning through high quality education, incorporating the most current technologies, and preparing students for professional life. The School both serves and is served by the greater metropolitan area by providing graduates who are knowledgeable in diverse disciplines and cultures. The School provides the opportunity and facilities for life long learning necessary for career advancement and change in a global society.

Objectives

- The School of Professional Studies endeavors to maintain the highest level of professionalism and is committed to maximizing student achievement. Students are valued as individuals to be respected. They are stimulated to become independent, self-reliant, creative in their personal and professional lives, and contributing members of society.
- The School of Professional Studies strives to continue to be a leading source of professional instruction for the citizens of Colorado. All graduates of the School have both a liberal arts foundation and an applied education preparation that allows them to compete successfully for career opportunities.
- The School of Professional Studies supports Metropolitan State College of Denver's urban focus and seeks to integrate academic and professional experiences. To this end the School uses the community as a living laboratory with clinical and field placements providing academic credit.

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](#)
- [Nursing](#)

Teacher Education

- [Early Childhood](#) (Child Development Center - for information call 303-556-6228)
- [Elementary](#)
- [Reading](#)
- [Secondary Education](#)
- [Special 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 Design](#)
- [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. 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 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 programs prepare graduates to enter administrative positions within the various segments of the aviation industry.

Airframe and powerplant (A&P) courses are not offered by MSCD. However, students holding a valid FAA airframe and powerplant certificate 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 Degrees

The Aerospace Science Department offers baccalaureate degree programs with majors in the following areas:

Aviation Management (AMG)

Aerospace Management Concentration
Aerospace Systems Management Concentration
Aerospace Maintenance Management Concentration

Aviation Technology (ATV)

Air Carrier/General Aviation Concentration
Aerospace Operations Concentration

Minors

Airframe and Powerplant Mechanics
Aviation Management
Aviation Technology
Private Pilot

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 (see page 12).

FAA-Approved Ground School

MSCD's Aerospace Science Department is a fully certificated and FAA-approved ground school for the private, instrument, commercial and flight and ground instructor FAA certificates and ratings. It has FAA examining authority for the Private, Commercial and Instrument Knowledge exams.

Flight Courses

Flight training is arranged by the student. Students must receive permission from the Aerospace Science Department before enrolling in flight courses (AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530 and AES 4550). Students receiving financial aid assistance who wish to receive flight training for credit must consult with the Financial Aid office. Aviation Technology students may obtain their FAA flight certificates from any approved FAA training program and submit the certificates to the Aerospace Science department before graduation.

The cost of flight training is in addition to regular tuition and college services fees. The 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.

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 in which the student enrolls in an Aerospace Science course. 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 in which the student enrolls in an Aerospace Science course.
- 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

2003-2004 College Catalog

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 or Type Rating - Flight Engineer.....	4

Bachelor of Science Degree Requirements

Students seeking a bachelor of science degree with a major in the Aerospace Science Department have five options, three in Aviation Management (AMG) and two in Aviation Technology (ATV). All students 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 each major. If your major is in Aerospace Science, a grade of at least a “C” is required in all courses listed as part of the major, whether or not they are AES courses, including electives; this requirement does not apply to the minor or General Studies. The program requirements for each major follow.

General Studies Required CoursesSemester 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 2020.....	6
Natural Sciences: PHY 1250	6
<i>General Studies Total</i>	34

Aviation Management (AMG) Major

Aerospace Management Concentration.....	85-86
(includes business minor or approved business electives)	
Aerospace Systems Management Concentration.....	87-88
Aerospace Maintenance Management Concentration.....	89-92
(includes 25 semester hours for Airframe and Powerplant certificate)	

Aviation Technology (ATV) Major

Air Carrier/General Aviation Concentration*.....	86
(includes 18-credit non-AES minor)	
Aerospace Operations Concentration.....	86
(includes 18-credit non-AES minor)	

**Air Carrier/General Aviation 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.*

Aviation Management (AMG)

Major for Bachelor of Science

Aerospace Management Concentration

This concentration integrates business and management courses with an aviation curriculum and a business minor (or business electives) to prepare the graduate for any of several aviation or aerospace business professions.

2003-2004 College Catalog

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
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
<i>Subtotal</i>	45

Additional Required Courses

MTH 1210 Introduction to Statistics	4
-or-	
CMS 2300 Business Statistics	3
PSY 1001 Introductory Psychology	3
COM 2610 Introduction to Technical Writing	
-or-	
SPE 3100 Business and Professional Speaking	3
<i>Subtotal</i>	9-10

Plus a minimum of 6 semester hours of approved AES courses	6-7
General Studies for all AES majors	34
Electives*	7
Minor in the School of Business or approved business electives	18
<i>Total</i>	120

**Seven semester hours of electives (approved by the Aerospace Science department) including an approved CMS course (if no other CMS courses are in the program or if computer proficiency is not demonstrated to the Computer Information Systems Department).*

Aerospace Systems Management Concentration

This concentration integrates business and management courses with an aviation curriculum to prepare the graduate for any of several aviation business professions, including careers in air traffic control, airport or FBO management, or airline operations and management.

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

2003-2004 College Catalog

COM 4790 Senior Seminar in Technical Communications	3
<i>Subtotal</i>	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 Introductory Psychology.....	3
MTH 1210 Introduction to Statistics.....	4
-or-	
CMS 2300 Business Statistics.....	3
MTH 1320 Calculus for the Management and Social Sciences*.....	3
COM 2610 Introduction to Technical Writing	
-or-	
SPE 3100 Business and Professional Speaking.....	3
<i>Subtotal</i>	12-13

Management	
MGT 3000 Organizational 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 Computer Applications for Business.....	3
CMS 3270 Micro Based Software	3
CMS Approved Elective.....	3
<i>Subtotal</i>	9
<i>Total Hours Required</i>	121-122

**Note: Prerequisite for MTH 1320 is MTH 1310 or MTH 1110 or MTH 1400;
MTH 1410 may be substituted for MTH 1320.*

Aerospace Maintenance Management Concentration

Required Courses	Semester Hours
Airframe and Powerplant Certificate	25
AES 1100 Aviation Fundamentals.....	6
AES 2150 Avionics for Aviators	4
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>	51

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

2003-2004 College Catalog

AES 4150 Transport Category Aircraft Systems.....	2
<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.....	4
CHE 1150 Principles of Chemistry Laboratory.....	1
MTH 1210 Introduction to Statistics	4
-or-	
MTH 1320 Calculus for the Management and Social Sciences ..	3
-or-	
CMS 2300 Business Statistics.....	3
<i>Subtotal</i>	8-9

Management	
MGT 3000 Organizational Management.....	3
MGT 3530 Human Resources 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
<i>Subtotal</i>	15

Computer Information Systems	
CMS 2010 Computer Applications for Business.....	3
CMS 3270 Micro Based Software	3
CMS Approved Elective.....	3
<i>Subtotal</i>	9
<i>Total Hours Required</i>	123-124

Aviation Technology (ATV) **Major for Bachelor of Science** **Air Carrier/General Aviation Concentration**

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 Multiengine Flight Simulation I	
-or-	
AES 4710 Turboprop 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

2003-2004 College Catalog

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 14 semester hours selected from the following:

AES Approved electives*

CMS 2010 Computer Applications for Business.....	3
CMS 3270 Micro Based Software.....	3
MTH 1210 Introduction to Statistics.....	4
-or-	
CMS 2300 Business Statistics.....	3
MTH 1320 Calculus for the Management and Social Sciences.....	3
<i>Subtotal</i>	14

**AES electives may be any AES course not required in the major with the exception of the flight courses: AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530, and AES 4550.*

General Studies for All AES Majors.....	34
Minor (non-AES except for Airframe and Powerplant Mechanics minor which is 31 semester hours).....	18-31
<i>Total Hours Required</i>	120-133

Aerospace Operations Concentration

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 2220 Flight Dispatcher/Load Planning.....	3
AES 3000 Aircraft Systems and Propulsion	3
AES 3850 Human Factors and physiology of Flight.....	3
AES 4040 Aircraft Performance	3
AES 4860 Aviation Safety	
-or-	
AES 4870 Aviation systems Safety Program Management.....	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
<i>Subtotal</i>	36

Plus a minimum of 32 semester hours selected from the following:

AES Approved Electives*

CMS 2010 Computer Applications for Business.....	3
CMS 3270 Micro Based Software.....	3
MTH 1210 Introduction to Statistics.....	4
-or-	
CMS 2300 Business Statistics.....	3
MTH 1320 Calculus for the Management and Social Sciences....	3
PSY 1001 Introductory Psychology.....	3
MGT 3000 Organizational Management.....	3

2003-2004 College Catalog

MGT 4530 Organizational Behavior.....	3
<i>Subtotal</i>	32

**AES electives may be any AES course not required in the major with the exception of the flight courses: AES 1500, AES 2500, AES 3520, AES 4500. AES 4510, AES 4520, AES 4530, and AES 4550.*

General Studies for All AES Majors.....	34
Minor (non-AES).....	18
Total Hours Required.....	120

Minors

Designed to afford majors in other disciplines the opportunity to develop an understanding of the aerospace world. AES majors may not elect the Aviation Management or Aviation Technology minors. Exception: Air Carrier/General Aviation majors may minor in Airframe and Powerplant Mechanics.

Aviation Management Minor

Required Courses	Semester Hours
AES 1100 Aviation Fundamentals	6
AES 3220 Aviation Law and Risk Management	3
<i>Subtotal</i>	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 and Job Targeting.....	3
<i>Subtotal</i>	12
<i>Total</i>	21

Airframe and Powerplant Mechanics Minor

Required Courses	Semester Hours
Completion of Airframe and Powerplant examinations with appropriate college credit hours awarded.....	25

Plus:

AES 4230 General and Business Aviation Operations	3
AES 4870 Aviation Safety Program Management	3
<i>Total</i>	31

Private Pilot Minor*

Required Courses	Semester Hours
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather	3
AES 1710 Single-Engine Flight Simulation I	3
AES 2710 Instrument Flight Simulation I	3
AES 3850 Human Factors and Physiology of Flight	3
AES 3000 Aircraft Systems and Propulsion	3

2003-2004 College Catalog

-or-

AES 4040 Aircraft Performance	3
Private Pilot Documentation	0
<i>Total</i>	21

**All private pilot minors must possess at least an FAA private pilot certificate.*

Aviation Technology Minor*

Required Courses	Semester Hours
AES 1100 Aviation Fundamentals	6
AES 1400 Aviation Weather	3
AES 1800 Commercial/Instrument 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 Aerospace Maintenance majors)	3
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 A&P certificate. 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

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 US 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 \$250-\$400 per month, tax-free. All cadets enrolled in the POC receive a month subsistence during the regular academic year. Two- and three-year scholarships are available to both men and women in all academic disciplines.

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.

USAF Medical Programs

Qualified pre-med or nursing students can compete for premed 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 may be worth up to 16 credit hours toward graduation depending on degree.

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.

Civil Engineering Technology Program

Department of Engineering Technology and Industrial Design

The specialized fields within civil engineering technology include programs in civil engineering technology and surveying. The surveying program is a separate, specialized four-year program. The individual curriculum requirements are listed separately. The degree awarded to civil engineering technology graduates is a B.S. in Civil Engineering Technology.

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 and the 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.

The Head of the Program, or designee, must approve all technical electives. All students who are considering a major in Civil Engineering Technology are expected to consult with CET faculty for advising.

All majors in Civil Engineering Technology are required to complete all civil engineering technology courses, mechanical engineering technology courses, surveying courses, MTH 1110, MTH 1410, MTH 2410, COM 2610, PHY 2311, PHY 2321, PHY 2331, PHY 2341, and CHE 1100 with a grade of "C" or better.

2003-2004 College Catalog

Under revised rules and regulations of the Colorado State Board for Registration for Professional Engineers and Professional Land Surveyors, students within 30 semester hours of graduation may take the Fundamentals of Engineering Examination.

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. If considering graduate school studies in engineering or physical science, students are encouraged to elect the mathematics minor.

Civil Engineering Technology Major for Bachelor of Science

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 CET Hydrology.....	3
CET 3330 Environmental Technology Processes	3
CET 4130 Soils Mechanics	3
COM 2610 Introduction to Technical Writing	3
MET 3110 Thermodynamics	3
SUR 1520 Construction Surveying	4

One of the following courses:

CSI 1050 Computer Science 1.....	4
CSS 1247 Introduction to Programming: Visual Basic.....	4
MTH 1510 Computer Programming: FORTRAN.....	4
Approved Upper-Division Technical Elective*.....	1

Subtotal59

Additional Requirements

CHE 1100 Principles of Chemistry	4
CHE 1150 Principles of Chemistry Laboratory.....	1
ECO 2010 Principles of Economics-Macro	
-or-	
ECO 2020 Principles of Economics-Micro	3
ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research and Documentation.....	3
MTH 1400 Precalculus Mathematics	4
MTH 1410 Calculus I	4
MTH 2410 Calculus II	4
PHY 2311 General Physics I.....	4
PHY 2321 General Physics I Laboratory	1
PHY 2331 General Physics II.....	4
PHY 2341 General Physics II Laboratory	1
SPE 1010 Public Speaking	3

2003-2004 College Catalog

Three hours of Level II General Studies-Historical*..3
Six hours of Level II General Studies-Arts and Letters*..6
Six hours of Level II General Studies-Social Science*..6
Total47-50

**Selecting any General Studies level II course approved for multicultural credit will satisfy the multicultural requirement of three credits.*

Concentrations (Choose one only)

Structures Concentration

Required Technical Studies
CET 4120 Concrete Design I3
CET 4140 Concrete Design II3
CET 4400 Steel Design I3
CET 4410 Steel Design II3
CET 4450 Timber Design3
Approved Upper-division Technical Elective*.....3
Total18

Construction Concentration

Required Technical Studies
CET 3110 Construction Estimating3
CET 4120 Concrete Design I3
CET 4400 Steel Design I3
CET 4570 Construction Law3
SUR 2530 Route Surveying.....4
Approved Upper-division Technical Elective*.....3
Total19

**May be used to satisfy the mathematics minor requirement.*

Mathematics Minor (Optional)

Required Technical Studies	Semester Hours
MTH 1410 Calculus I.....	4
MTH 2410 Calculus II.....	4
MTH 2420 Calculus III.....	4
MTH 3420 Differential Equations.....	4
MTH 3140 Linear Algebra.....	4
MTH 3210 Probability and Statistics.....	4
-or one of the following courses-	
CSI 1050 Computer Science I.....	4
CSS 1247 Introduction to Programming: Visual Basic.....	4
MTH 1510 Computer Programming: FORTRAN.....	4
<i>Total</i>	24

Criminal Justice and Criminology Department

The present and future needs of US 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 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

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

Digital Media Minor – Departments of Art, Communication Arts and Sciences, and Technical Communications

The Digital Media Minor includes courses from the departments of Art, Communication Arts and Sciences, and Technical Communications. This minor consists of 24 hours, six of which must be upper division. This minor is designed to provide skills that will increase employment opportunities in the field of digital media communication. In addition to required core courses, students choose one of the following concentrations: motion media, interactive media, content design or still media. The motion media concentration deals with television and corporate video production. Students in interactive media work with computer graphics, interactive applications and web-based media production. The content design concentration focuses on the design of the message from the visual and written perspective. Still-media students explore with photography, photojournalism, and computer imaging. Courses that are recommended to fulfill the General Studies Level II Arts & Letters requirement are: ART 1040 or ART 2040 or SPE 2850/ART 2850. Students should contact an advisor to plan a course of study for their particular minor. If you have taken any one of the required courses as part of your major, you must substitute another course(s) in the minor for it.

Required Core

Required Courses	Semester Hours
ART 1180 Introduction to Computers in Art.....	3
ART 1200 Design Processes and Concepts I.....	3
COM 2430 Introduction to Technical Media.....	3
JRN 1010 Introduction to Journalism and Mass Media.....	3
<i>Required Core Total</i>	12

Choose three courses from one of the four concentrations. In addition, choose one course from any of the four concentrations. Courses cannot be used to meet both the requirements of this minor and the requirements of a major in Art, Journalism, Speech or Technical Communications.

Still Media Concentration

Courses

Semester.....	Hours
ART 1030 Basic Photography Methods.....	3
ART 2180 Beginning Computer Imaging I.....	3
ART 2190 Beginning Computer Imaging II.....	3
JRN 2600 Introduction to Photojournalism.....	3
JRN 3600 Photojournalism I.....	3
JRN 4600 Photojournalism II.....	3
JRN 4890 Social Documentary.....	3

Interactive Media Concentration

Courses

Semester.....	Hours
ART 2180 Beginning Computer Imaging I.....	3
ART 3410 Digital Video Art.....	3
ART 4190 Interactive Multimedia Art.....	3

2003-2004 College Catalog

ART 4510 Advanced Computer Imaging.....	3
COM 2450 Basic Multimedia Production.....	3
COM 2470 Basic DVD Authoring.....	3
COM 2480 Corporate Animation.....	3
COM 3450 Intermediate Multimedia Production.....	3
COM 3460 Virtual Reality in Corporate Communications.....	3
COM 4450 Advanced Multimedia Production.....	3

Motion Media Concentration

Courses

Semester.....	Hours
ART 3410 Digital Video Art (prerequisite ART 2180).....	3
COM 2400 Basic Video Editing.....	3
COM 3400 Nonlinear Video Editing.....	3
COM 4401 Advanced Nonlinear Video Editing.....	3
COM 2420 Basic Corporate Videotape Production.....	3
COM 3420 Intermediate Corporate Videotape Production.....	3
COM 4420 Advanced Videotape Production.....	3
COM 4430 Lighting and Directing for Nonbroadcast Video.....	3
SPE 3430 Radio-Television Announcing.....	3
SPE 3440 Television Production.....	3
SPE 4440 Advanced Television Production.....	3

Content Design Concentration

Courses

Semester.....	Hours
COM 3440 Corporate Scriptwriting for Film and Television.....	3
COM 3470 Writing for Multimedia.....	3
COM 3680 Internet Document Design for Technical Communicators.....	3
JRN 1100 Beginning Reporting.....	3
JRN 1200 Beginning Editing.....	3
SPE 4450 Broadcast Journalism: Television.....	3

Required Core Courses:.....	12
Concentration Courses.....	9
Electives.....	3
<i>Total for Minor in Digital Media (6 hrs. Upper Division required).....</i>	<i>24</i>

Electrical Engineering Technology Program

Department of Engineering Technology and Industrial Design

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.

Graduates of four-year engineering technology programs may get jobs similar to those obtained by graduates with a bachelor's degree in engineering. Some employers regard them as having skills between those of a technician and an engineer. Graduates are employed in a variety of positions including manufacturing, computer programming, management, design, sales, service and support.

The EET curriculum builds a solid theoretical foundation in science, mathematics and electric circuits and devices. The student majoring in EET may specialize in one the following concentrations: Computer Engineering Technology, Communications, or Power and Control Systems.

Electrical Engineering Technology Major for Bachelor of Science

The Bachelor of Science degree is awarded upon completion of the required program. The program emphasizes theory and practice. Laboratory and lecture classes are generally integrated.

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.

Additional Requirements for EET Majors:

- Any course used to satisfy a prerequisite for an EET course must be passed with a grade of “C” or better.
- Students must achieve a cumulative GPA of 2.0 for all courses that satisfy the MSCD General Studies requirements.

Required Technical Courses (Core)	Semester Hours
EET 1001** Electronics: An Introduction (or EET elective in consultation with EET Advisor)	3
EET 1140 Circuits I	4
EET 1150 Circuits II	4
EET 2140 Electronics I	3
EET 2150 Electronics II	3
EET 2310 Digital Circuits I	4
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
Six hours of EET Electives	6
<i>Subtotal</i>	56

Additional Course Requirements

CHE 1100 Principles of Chemistry and CHE 1150 Principles of Chemistry Laboratory (The sequence CHE 1800, CHE 1180, and CHE 1850 may be substituted)	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 (The sequence MTH 1110 and 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
Three hours of Level II General Studies-Historical*	3
Six hours of Level II General Studies-Arts and Letters*	6
Six hours of Level II General Studies-Social Science*	6
<i>Subtotal</i>	54

2003-2004 College Catalog

Concentration***.....	18
Program Total.....	128

**These courses count toward General College Requirements. Selecting any General Studies level II course approved for multicultural credit may satisfy the multicultural requirement of three credits.*

***These courses are not required if the student chooses the Computer Engineering Technology concentration. For replacement courses, see the concentration.*

****In select cases, a minor in another area may be substituted for a concentration with prior approval of an EET advisor.*

Available EET Concentrations (only one area needs to be chosen)

Computer Engineering Technology Concentration

Required as an Arts and Letters General Studies course for this concentration:

PHI 3360* Business Ethics

-or-

PHI 1030* Ethics.....3

** These courses count toward General College Requirements.*

The following courses are required and are considered part of the EET major requirements as indicated:

EET 3350 Embedded Applications Using C++ (Replaces EET 2350 in Core)..3

EET 4340 Interface Techniques (Required EET elective).....3

EET 4370 Microcontrollers (Required EET elective).....3

Three hours chosen from EET 3690, EET 4320, or EET 4330 (Replaces EET 3120 in Core)..3

CSI 1050 Computer Science 1 (Replaces EET 1001/Elective* in Core)..4

** Students with weak mathematical skills may still be advised to take EET 1001 to enhance their skills.*

Required Courses for the Concentration.....Semester Hours

CSI 2050 Computer Science 2.....4

CSI 2400 Computer Organization and Assembly Language.....4

CSI 3400 Computer Architecture.....4

Six additional hours chosen from CET 3120, CSI 3600, CSI 3700, CSI 4250, EET 1300,

EET 3690, EET 3730, EET 3740, EET 3800, EET 4020, EET 4320, EET 4330, EET 4630,

or EET 4730.....6

Subtotal.....18

Communications Concentration

Please check with the EET program on updates to courses for this concentration.

Required Courses.....Semester Hours

EET 1300 Computer Nuts and Bolts.....3

EET 3670 Measurements for Communication Systems

-or-

Three hours of EET elective chosen in consultation with an EET advisor..3

EET 4330 Data Communications.....3

EET 4620 Advanced Communications Systems.....3

2003-2004 College Catalog

Six additional hours chosen from CET 3120, CMS 3280, CSI 3700, EET 3630, EET 3690, EET 3800, EET 4020, EET 4320, EET 4520, EET 4630, or EET 4730..6
Subtotal.....18

Power and Control Systems Concentration

Required Courses.....Semester Hours

EET 3410 Electric Machines

-or-

EET 3420 Electric Power Distribution.....3

EET 3730 Process Control Systems.....2

EET 3740 Programmable Logic Controllers.....2

EET 4710 Digital Control Systems Design.....4

Seven additional hours chosen from CET 2150, CET 3120, EET 3350, EET 3410,

EET 3630, EET 3720, EET 3800, EET 4320, EET 4330, EET 4340, EET 4370,

EET 4730 , MET 3110, or MET 3120.....7

Subtotal.....18

Minors and Certificates in Electrical Engineering Technology

Along with the EET Major and its three concentrations, the EET program also has two areas available as a minor or as a certificate: Electrical Engineering Technology and Network Communications.

Additional requirements for minors within the EET program: Any course used to satisfy a prerequisite for an EET course must have a grade of "C" or better.

Electrical Engineering Technology Certificate or Minor

Prerequisites.....Semester Hours

MTH 1400 Precalculus Mathematics

(The sequence MTH 1110 and MTH 1120 may be substituted).....4

PHY 2311 General Physics I

(Algebra based PHY 2010 may be substituted).....4

PHY 2321 General Physics I Laboratory

(Algebra based PHY 2030 may be substituted).....1

PHY 2331 General Physics II

(Algebra based PHY 2020 may be substituted).....4

PHY 2341 General Physics II Laboratory

(Algebra based PHY 2040 may be substituted).....1

Required Courses.....Semester Hours

EET 2000 Electric Circuits and Machines.....3

(The sequence EET 1140 and EET 1150 may be substituted.)

EET 2310 Digital Circuits I.....4

EET 2340 Technical Programming Applications.....3

(Any one of the following may be substituted: CSI 1050, 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

Total.....20

Network Communications Certificate or Minor

Please check with the EET program on updates to courses for this certificate or minor.

Required Courses.....Semester Hours

EET 1300 Computer Nuts and Bolts.....3

2003-2004 College Catalog

EET 2310 Digital Circuits I.....	4
EET 4330 Data Communications.....	3
EET 4520 Cellular and PCS (Personal Communication Services)	
-or-	
Three hour EET Elective chosen in consultation with an EET advisor..	3
CMS 3280 LAN and WAN Systems for Business.....	3
CMS 4280 Network Installation and Administration.....	3
<i>Total</i>	19

Engineering Fundamentals Certificate

(For individuals with a background of Electrical Engineering or Electrical Engineering Technology seeking to improve their knowledge of areas outside of their background that are covered in the Fundamentals of Engineering Exam).

Recommended Additional Mathematics Courses:.....	Semester Hours
MTH 2420 Calculus III.....	4
MTH 3420 Differential Equations.....	4

Required Courses.....	Semester Hours
CET 2150 Mechanics I-Statics.....	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 3180 Fluid Mechanics I.....	3
CET 3190 CET Hydrology	
-or-	
EET 4320 Digital Filters.....	3
EET 3630 Electromagnetic Fields.....	3
MET 3110 Thermodynamics.....	3
PHI 3360 Business Ethics	
-or-	
PHI 1030 Ethics.....	3
<i>Total</i>	28

Engineering Technology and Industrial Design Department

The Engineering Technology and Industrial Design Department houses:

- [Civil Engineering Technology](#)
- [Electrical Engineering Technology](#)
- [Industrial Design](#)
- [Mechanical Engineering Technology](#)
- [Surveying and Mapping](#)

For further information, call 303-556-2916 or stop by Technology Building, room 124.

Gerontology Programs - Department of Health Professions

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.

2003-2004 College Catalog

Students have three options of programs in gerontology to select from: a certificate in gerontology; a minor in gerontology; and a major in Human Development (Applied Track concentration) 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, 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 Physiology of Aging for Non-Biology Majors	
-or-	
BIO 3530 Physiology of Aging for Non-Biology Majors	3
PSY 3270 Adulthood and Aging	3
SOC 1040 Introduction to Social Gerontology	3

2003-2004 College Catalog

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.

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
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
NUT 3100 Nutrition and Aging	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>	21-24

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.)

Human Development with an Applied Track Concentration Major

See the gerontology advisor in the Department of Health Professions.

Sociology with a Gerontology Concentration Major

See an advisor in the Department of Sociology and Anthropology for information on this program.

Certificate Program Available

GERONTOLOGY

Required Core

HES 3810 Physiology of Aging for Non-Biology Majors	3
HES 4520 Internship in Gerontology	3-6
PSY 3270 Adulthood and Aging	3
SOC 1040 Introduction to Social Gerontology	3

Choose nine credit hours from one of the following orientations:

2003-2004 College Catalog

Liberal Arts Orientation

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
LES 2330 Advocacy, Leisure, and the Aging Adult	3
LES 3070 Health and Movement Problems in the Aging Adult.	3
NUT 3100 Nutrition and Aging	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
- Nutrition

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 a bachelor of science degree with a major in health care management. The department also offers minors in health care management and nutrition, and Holistic Health and Wellness Education, and coordinates the interdisciplinary minor, 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 (South Classroom 226).

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.

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

2003-2004 College Catalog

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-Practicum	2
HCM 4510 Health Care Management Practicum	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
Approved Computer Course	3
<i>Total</i>	47

A minor is required. 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. Students who have attended the Paramedic School at the Denver Health Medical Center and obtained a Paramedic Certificate may use the certificate in lieu of the minor.

2003-2004 College Catalog

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*	3
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 3070 Parental Health Care Issues	3
HES 3450 Dynamics of Disease**	3
HES 3600 Ethical Decision Making in Health Care	3
HES 3820 Health Care Counseling	3
NUT 2040 Introduction to Nutrition**	3
HES 3080 Maternal and Child Nutrition	3
HES 3100 Nutrition and Aging	3
HES 3200 Nutrition and Sports Performance	3
HES 3210 Community Nutrition	3

* meets Level II-General Studies Social Sciences requirement

** meets Level II-General Studies Natural Science requirement

Nutrition Minor, see page 248 of this Catalog.

Holistic Health and Wellness Education Multi-Disciplinary Minor

The holistic health and wellness education multi-disciplinary 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 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 minor comprises 21 hours of study:

Required Courses	Semester Hours
HES 1050 Dynamics of Health	3
HES 2750 Introduction to Holistic Health	3

2003-2004 College Catalog

HPS 1640 Physical Fitness Techniques and Programs	2
HSP 3750 Holistic Health and High-Level Wellness	4
NUT 2040 Introduction to Nutrition	3
Approved electives*.....	3
Approved ethics course.....	3
Total	21

**Students in the minor who do not have a research course required in their major are required to use the elective hours to obtain research skills. Students in the minor who do not have an internship required in their major are encouraged to arrange a practical experience through HES 3980. Courses should be selected in consultation with a faculty advisor.*

To meet the General Studies multicultural requirement, ANT 3480–Cultural Diversity in Health and Illness, is highly recommended.

To meet the General Studies natural sciences requirement, a course in human biology is highly recommended.

Hospitality, Meeting and Travel Administration Department

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.

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

2003-2004 College Catalog

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.
- 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.*

Major for Bachelor of Arts

General Studies Course Requirements

Level I - SkillsSemester Hours

Freshman Composition (minimum 6 semester hours)

ENG 1010 Freshman Composition: The Essay3

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 Speaking3

2003-2004 College Catalog

Level II - Content Areas

Historical (minimum 3 semester hours)

XXX select any course from Level II History approved list3

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 list3

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

NUT 2040-Introduction to Nutrition)

General Studies total credit hours34

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

Total4

**Course has prerequisites; check current MSCD College Catalog for requirements.*

Major Core Requirements

ACC 1010 Accounting for Non-Business Majors**

-or-

ACC 2010 Principles of Accounting I**3

CMS/CSS 1010 Introduction to Computers*3

HMT 1030 Principles of Travel Administration2

HMT 1040 Principles of Meeting Administration2

HMT 1050 Principles of Hotel Administration2

HMT 1060 Principles of Restaurant Administration2

HMT 3570 Hospitality Marketing**3

HMT 3580 Hospitality Tourism Law**3

HMT 4640 Hospitality Customer Service3

HMT 4650 Hospitality Employee Resource Development**3

MGT 3000 Organizational Management**3

Total29

**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 I3

2003-2004 College Catalog

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
<i>Subtotal</i>	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
<i>Subtotal</i>	3
<i>Total</i>	26

**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 2560 Hotel 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
<i>Total</i>	31

**Course has prerequisite; please check the current MSCD College Catalog for requirements.*

2003-2004 College Catalog

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
<i>Subtotal</i>		28

**Course has prerequisite; please check the current MSCD College Catalog for requirements.*

In addition to the required meeting concentration courses, students must select six hours from Category I and six hours from Category II.

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
<i>Subtotal</i>		6

Category II (Select 6 hours)

HMT 1810	Basic Ticketing and Reservation Procedures	4
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

Total of Categories I and II12

**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

2003-2004 College Catalog

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

In addition to the required travel concentration courses, students must 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.

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

2003-2004 College Catalog

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>	26

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
HMT 4890 Seminar in Foreign Independent Tours: Variable Topics	2
<i>Total</i>	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 must complete the coursework in the K-12 Physical Education 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 Teacher Education Department for information regarding teacher licensure programs (West Classroom 136).

Additional requirement: A grade of “C” or better is required for all HPSL courses taken in any major/minor concentrations.

For Leisure Studies, please [click here](#).

Human Performance and Sport Major for Bachelor of Arts

K-12 Physical Education Concentration

General Studies (Required courses for K-12 Physical Education)

Arts and Letters.....	6
Communications	
SPE 1010 Public Speaking.....	3
Composition	
ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation.....	3
Historical.....	..3
Mathematics	
MTH 1610 Integrated Mathematics I.....	4
Natural Sciences	
BIO 1080 General Introduction to Biology.....	3
BIO 1090 General Introduction to Biology Laboratory.....	1
BIO 2310 Human Anatomy and Physiology I.....	4
BIO 2320 Human Anatomy and Physiology II.....	4
Social Sciences	
EDS 3200 Educational Psychology Applied to Teaching.....	3
HES 1050 Dynamics of Health.....	3
Multicultural	
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools.....	3
Subtotal.....	.43

Major

Professional Activity Courses (required)

HSL 1010 Skills and Methods of Teaching Tumbling and Gymnastics.....	2
HSL 1020 Skills and Methods of Teaching Weight Training.....	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
Total.....	..8

Professional Activity Courses (electives from A and B below - 10 total credits required)

A. Team Sports (minimum of 4 credits required)

HSL 1100 Skills and Methods of Teaching Team Handball and Lacrosse	
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2003-2004 College Catalog

.....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	
HSL 1410 Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course	
Activities.....2	
Subtotal.....2	
4-6	

B. Individual Sports (minimum of 4 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	
HSL 1400 Skills and Methods of Teaching Camping, Backpacking and Orienteering..2	
Subtotal.....	
4-6	
Total.....	
.10	

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	
Subtotal.....	
..2	

Theory Classes

EDS 3120 Field Experiences in Multicultural Urban Secondary Schools.....2	
EDS 4290 Student Teaching and Seminar: Secondary 7-12.....6	
EDT 3610 Applications of Educational Technology.....2	
EDU 4190 Student Teaching and Seminar: Elementary K-6.....6	
HPS 1600 Introduction to Human Performance and Sport.....2	
HSP 1623 Prevention and Care of Athletic Injuries.....3	
HPS 1640 Physical Fitness Techniques and Programs.....2	
HPS 2060 Emergency Rescue/First Responder & CPR.....3	

2003-2004 College Catalog

HPS 3000 Health Programs in Human Performance and Sport	3
HPS 3300 Anatomical Kinesiology	3
HPS 3340 Physiology of Exercise	3
HPS 3400 Methods of Teaching Secondary Physical Education*.....	3
HPS 3410 Field 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 Field Experience in Elementary Physical Education**.....	2
HPS 4500 Motor Learning and Development	3
HPS 4600 Organization, Admin. & Curriculum of Human Performance and Sport.....	3
HPS 4620 Adaptive Physical Education.....	4
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators ...	3
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
Subtotal.....	.65
Total Minimum Hours for K-12 Physical Education Major.....128	
*HPS 3400 and HPS 3410 must be taken concurrently.	
**HPS 3500 and HPS 3510 must be taken concurrently.	

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 XXXX Skills and Methods Courses.....	12
LES 4730 Sociology of Athletics in American Society	3
Approved Electives*	13
Total	44

**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/Athletic Training Education Program

2003-2004 College Catalog

The Athletic Training Education Program (ATEP), a concentration and extended major within the Department of Human Performance, Sport, and Leisure Studies, is designed for the student desiring a career in the allied health care field of athletic training. The objective of the ATEP at MSCD is the professional preparation of athletic training students, qualifying them to sit for the National Athletic Trainers Associate Board of Certification (NATABOC) certification exam. Upon successful completion of the NATABOC exam, the athletic training graduate may practice as a certified athletic trainer (ATC).

Completion of this program eliminates the need for a minor as it is considered an extended major.

The necessary steps for students wishing to pursue athletic training as a field of study are as follows:

- Contact the ATEP Director for academic advising and declaration of major.
- Enroll in and complete the following courses with a grade of “C” or better:
BIO 1080 & 1090—General Introduction to Biology and Lab (prerequisites for BIO 2310)*
HPS 1623—Prevention and Care of Athletic Injuries*
HPS 2060—Emergency Rescue/First Responder and CPR*

Ideally these courses should be taken during the freshman year.

**Equivalent transfer courses may be considered*

Following completion of the above courses, all students, including transfer students must meet specific criteria to continue in the ATEP and begin the remaining six-semester sequence of athletic training corequisite, didactic/clinical courses. The sequence begins each fall. Please note the following:

Students must meet criteria to continue in the Athletic Training Education Program
Six semesters are required to complete the Athletic Training Education Program.
The sequence begins only in the fall semester.

Candidates for continuation, including transfer students, in the ATEP must comply with all program continuation standards. These specific criteria are as follows:

- Indicate a desire to continue in the Athletic Training Education Program by submitting the completed ATEP Continuation Intent Form.
- Have completed BIO 1080 & 1090, HPS 1623, and HPS 2060 with a grade of “C” or better.
- Have completed a minimum of 12 semester hours with a cumulative grade point average (GPA) of 2.5 or higher on a 4-point scale, or 3.0 or better in the last 30 credit hours completed.
- Write and submit a brief summary of professional goals and objectives, indicating sincere interest and commitment in athletic training as a profession.
- Obtain and submit three character reference letters. One should be from a college faculty member (MSCD athletic training faculty are excluded).
- Have proof of current immunizations for DPT, MMR, TB, and hepatitis B (or HBV declination).
- Carry individual/personal student athletic trainer malpractice/liability insurance in the amount of \$1,000,000/\$3,000,000.
- Submit a signed statement indicating acknowledgment of the ATEP continuation criteria and policies and procedures.

These materials must be submitted as a packet to the ATEP director no later than March 1st in order to be considered for continuation and beginning the athletic training sequenced courses.

Following submission of these materials, an interview will be scheduled with the athletic training committee. Students will be notified of their status in the ATEP by April 30th.

2003-2004 College Catalog

Transfer students **must** meet all of the continuation criteria in order to begin the six-semester sequence of athletic training didactic/clinical corequisite courses.

Following initial continuation and completion of the the first semester of the athletic training six-semester sequence, students must maintain a cumulative GPA of 2.5 and major GPA of 2.75. If either GPA falls below the minimum, one of the following will occur:

- The student will be placed on probation and have one semester to bring the GPA(s) up to acceptable levels, while remaining in the course sequence.
- If the student fails to bring the GPA(s) up to acceptable levels after one semester, the student will be suspended from the major until the GPA minimums are achieved. Resumption in the ATEP will commence in the appropriate sequential semester.
- If, after two semesters, the student does not bring the GPA(s) to acceptable levels, the student will be dismissed from the ATEP.
- If the GPA(s) are raised to the minimum, the dismissal may be appealed.

Third and fourth year athletic training students will be notified of their status by June 1st of each year.

Candidates for continuation in the Athletic Training Education Program also must demonstrate the following ATEP technical standards:

1. The mental capacity to assimilate, analyze, synthesize, and integrate concepts and problem solving to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm;
2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients;
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice;
4. The ability to record the physical examination results and a treatment plan clearly and accurately;
5. The capacity to maintain composure and continue to function well during periods of high stress;
6. The perseverance, diligence, and commitment to complete the athletic training education program as outlined and sequenced;
7. Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations;
8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

Please note the following:

- After December 31, 2003, students must graduate from a CAAHEP accredited Athletic Training Education Program to be eligible to sit for the NATABOC examination.
- Presently, the Athletic Training Education Program at MSCD is in Candidacy for CAAHEP accreditation.

Required Courses	Semester	Hours
BIO 2320 Human Anatomy and Physiology II.....	4	
HPS 1623 Prevention and Care of Athletic Injuries.....	3	
HPS 1640 Physical Fitness Techniques and Programs.....	2	
HPS 2060 Emergency Rescue/First Responder & CPR.....	3	
HPS 2220* Foundations of Athletic Training.....	3	
HPS 2221* Athletic Training Clinical Experience I.....	2	

2003-2004 College Catalog

HPS 2790 Pathology of Athletic Injury/Illness.....	3
HPS 2860** Therapeutic Modalities in Sports Medicine.....	3
HPS 2861** Athletic Training Clinical Experience II.....	2
HPS 3000 Health Programs in Human Performance and Sport.....	3
HPS 3300 Anatomical Kinesiology.....	3
HPS 3340 Physiology of Exercise.....	3
HPS 3830# Upper Body Injury Evaluation.....	3
HPS 3831# Athletic Training Clinical Experience III.....	2
HPS 3850## Lower Body Injury Evaluation.....	3
HPS 3851## Athletic Training Clinical Experience IV.....	2
HPS 4660 Legal Liability for Physical Educators, Coaches and Administrators.....	3
HPS 4750^ Upper Body Injury Rehabilitation.....	3
HPS 4751^ Athletic Training Clinical Experience V.....	2
HPS 4770^^ Lower Body Injury Rehabilitation.....	2
HPS 4771^^ Athletic Training Clinical Experience VI.....	2
HPS 4850 Seminar in Athletic Training.....	3
NUT 2040 Introduction to Nutrition.....	3
PSY 3100 Psychology of Counseling.....	3
Total.....	65

**HPS 2220 & HPS 2221 must be taken concurrently in the fall semester.*

***HPS 2860 & HPS 2861 must be taken concurrently in the spring semester. #HPS 3830 & HPS 3831 must be taken concurrently in the fall semester.*

##HPS 3850 & HPS 3851 must be taken concurrently in the spring semester.

^HPS 4750 & HPS 4751 must be taken concurrently in the fall semester.

^^HPS 4770 & HPS 4771 must be taken concurrently in the spring semester.

Please Note:

- Required General Studies courses (fulfill Natural Science General Studies requirement):
BIO 1080 & 1090—General Introduction to Biology and Lab
BIO 2310—Anatomy and Physiology I

The Athletic Training Clinical Experience courses; HPS 2221, 2861, 3831, 3851, 4751, and 4771, meet for 1 hour per week at MSCD and require a minimum of 13 hours per week at assigned affiliated athletic training sites in the Denver Metro area. The ATEP director and clinical coordinator will determine placement at these sites. Students will be rotated to various sites during the six-semester sequence.

Adult Fitness and Exercise Science Concentration

This concentration is 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, hospitals, and private corporate fitness program development.

Professional Activity Courses	Semester
Hours	
HSL 1020 Skills and Methods of Teaching Weight Training.....	2
HSL 1440 Skills and Methods of Teaching Stress Management	2
Subtotal	
.....	4

2003-2004 College Catalog

Basic Theory Courses

HPS 1623 Prevention and Care of Athletic Injuries	3
HPS 1640 Physical Fitness Techniques and Programs	2
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
NUT 2040 Introduction to Nutrition	3
PSY 2410 Social Psychology	3
Subtotal	43
Total	47

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.

Required Courses	Semester Hours
HPS 2050 Sport Industry	3
HPS 2070 Sport Venue Operations	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 Sport Industry Operations*	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
Subtotal	34

2003-2004 College Catalog

Approved Electives	6
Total hours	40

Note: Students must have a 2.75 GPA to be eligible for an internship.

**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 Field 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 Gymnastics.....	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
Total	24

**HPS 3500 and 3510 must be taken concurrently.*

Secondary Physical Education Concentration

HPS 1640 Physical Fitness Techniques and Programs	2
HPS 3400 Methods of Teaching Secondary Physical Education*	3
HPS 3410 Field 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 4660 Legal Liability for Physical Educators, Coaches and Administrators	3
HSL XXXX Skills and Methods Courses	8
Total	24

**HPS 3400 and 3410 must be taken concurrently.*

Sport and Allied Fields Concentration

HPS 1600 Introduction to Human Performance and Sport	2
HPS 2060 Emergency Rescue/First Responder and CPR*.....	3

2003-2004 College Catalog

HPS 3620 Trends and Issues in Human Performance and Sports	2
HSL XXXX 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
<i>*and/or a valid Advanced American Red Cross Card and 3 hours of HPSL Department electives</i>	

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 & Administrators	3
HSL 1020 Skills & Methods of Teaching Weight Training	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 Gymnastics.....	2
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>	19-20

Adult Fitness and Exercise Science Concentration

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
NUT 2040 Introduction to Nutrition	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.

Health Education Concentration

CJC 3510 Drug Abuse: Legal Issues and Treatment	3
HPS 2020 Community Health	3

2003-2004 College Catalog

HPS 2060 Emergency Rescue/First Responder and CPR	3
HPS 3000 Health Programs in Human Performance and Sport	3
HPS 3910 Safety Education	3
NUT 2040 Introduction to Nutrition	3
PSY 3250 Child Psychology	
-or-	
PSY 3260 Psychology of Adolescence	3
<i>Total</i>	21

Certificate Programs Available

Special Note: These certificates may be discontinued during the 2003-2004 school year. Please check with the HPSL department for current information (303-556-3145).

Students must complete each course in the certificate program with a grade of “C” or better. The courses cannot be taken pass/fail.

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

For prerequisites and more information, call the HPSL Department, 303-556-3145.

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 the HPSL Department, 303-556-3145.

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 the HPSL Department, 303-556-3145.

AQUATICS ASSISTANT

HPL 1030 Swim Conditioning	2
HPL 1040 Water Exercise	2

2003-2004 College Catalog

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 the HPSL Department, 303-556-3145.

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 the HPSL Department, 303-556-3145.

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.....	2

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 the HPSL Department, 303-556-3145.

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 XXXX Skills and Methods courses	

For prerequisites and more information, call the HPSL Department, 303-556-3145.

Human Services Department

The Human Services Department at Metropolitan State College of Denver prepares students for careers in the helping professions: assisting individuals, couples, and families meet the challenges of living throughout the life cycle. The core curriculum offers courses in the theory and practice of mental health counseling, including applied behavioral analysis, small group dynamics, ethical and legal issues, psychopathology and the mental health clinician, and practicum and internship experiences where students apply the theory they have studied thus developing their application skills in human service work settings. The Human Services major is based on this counseling and mental health services core curriculum.

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 Human Services, provides course work in assessment, prevention, and intervention of mental health concerns. Specialized education in addiction intervention theory and techniques; domestic violence counseling; high-risk youth intervention, prevention, and counseling; or nonprofit administration principles meeting Colorado State certification is offered. Multicultural issues in the delivery of human services are addressed throughout the curriculum noting in particular cultural diversity issues of race/ethnicity, gender, socioeconomic class, religion, sexual orientation, age, physical and mental abilities in the delivery of human services. The core curriculum can be supplemented with a concentration in high-risk youth, drug and alcohol counseling, domestic violence counseling, or nonprofit organization administration. Field instruction at community agencies further textbook learning and provide networking opportunities for our students.

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. State certification in addictions studies or domestic violence is available at the baccalaureate level. Over half of our graduates go on to complete graduate degrees and licensure or practice requirements in human services, marriage and family counseling, various fields within psychology, theology, pastoral counseling, social work, addiction studies, public administration, or other areas, including business and law. If graduate study is part of your career plans, please talk with an advisor about your options and necessary course work for entry into such programs.

Human Services Major for Bachelor of Science

The student must meet the college's graduation requirements for a bachelor's degree, complete the General Studies requirements of the College, and the Human Services core courses listed below.

Specific concentrations have differing requirements for General Studies; see your advisor. Concentrations available include counseling and mental health services, addiction studies, domestic violence counseling, high risk youth studies, nonprofit organization administration, and paramedic. Students who major in Human Services are not required to complete a minor.

A letter grade of "C" or better is required in each Human Services core course and each course specifically required for a concentration.

Core Classes for Major

Required Courses.....	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 Legal Issues in the Helping Professions.....	3
HSP 3490 Multicultural Issues in Human Services.....	4

2003-2004 College Catalog

HSP 4790 Professional Internship.....	12
Core Total.....	47

Counseling and Mental Health Services Concentration

The Counseling and Mental Health Services Concentration teaches students counseling theory and develops counselor-client interaction skills in assisting clients to cope with life's personal and emotional challenges. This concentration prepares students for entry-level employment in community mental health, non-profit counseling agencies, employee assistance programs, and general social service delivery systems under the supervision of licensed mental health professionals. This concentration additionally prepares students to pursue graduate education in a variety of areas including: human services, counseling psychology, social work direct services, addiction counseling, marriage and family, and pastoral counselor programs. Students should note that professional licensure requires the completion of a graduate degree, successfully passing a comprehensive examination, and a period of supervised practice.

Required Courses.....	Semester Hours
Human Services Core.....	47
HSP 4320 Psychopathology and the Mental Health Clinician.....	4

Electives may be chosen from any concentration, or from the following list of human services electives (12 credits required):

HSP 1110 Introduction to Disabilities.....	4
HSP 1470 Addictive Experiences: Sex, Drugs, Rock and Roll.....	3
HSP 2060 Human Services Practicum II.....	8
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 3430 Addictive Behaviors.....	3
HSP 3450 Crisis Intervention.....	3
HSP 3480 Applied Counseling Skills.....	2
HSP 3710 Research Methods for Human Services.....	3
HSP 3750 Holistic Health and High-Level Wellness.....	4
HSP 4040 Cognitive Behavior Therapy.....	3
HSP 4100 Gerontology for Human Service Professionals.....	2
HSP 4200 Child Abuse and Neglect.....	2
HSP 4250 Counseling the Gay or Lesbian Client.....	2
HSP 4360 Advanced Intervention Techniques.....	4
HSP 4490 Contemporary Issues in Human Services: Variable Topics.....	1-4
HSP 4520 Grief Counseling.....	3
HSP 4540 Youth, Drugs and Gangs.....	2
Subtotal for Electives.....	12

Total hours for major.....	63
General Studies*.....	33
Electives.....	24
Total for the Degree.....	120

**Students should consult an advisor for recommended General Studies courses.*

The Center for Addiction Studies

The Center for Addiction Studies offers four programs:

2003-2004 College Catalog

- a counselor training program in drugs, alcohol, and addictive behavior counseling (subject to ADAD CAC certification requirements)
- a concentration in drug, alcohol and addictive behaviors
- a counselor training program in domestic violence counseling (fulfilling state certification requirements)
- a concentration in domestic violence counseling.

Individuals interested in these programs should contact the Center for Addiction Studies in the Department of Human Services for further information at 303-556-2951.

Addiction Studies Concentration

Students learn about drug/alcohol counseling as well as other addictive behaviors such as smoking, gambling, and eating disorders. Graduates attain understandings, skills, and attitudes necessary to function as professional addiction counselors, and are eligible to apply for state certification upon completion of the degree program.

Required Courses.....	Semester Hours
Human Services Core.....	47
HSP 2060 Human Services Practicum II.....	8
HSP 3400 Pharmacology of Drugs and Alcohol*.....	3
HSP 3470 Counseling the Substance Abuser.....	4
HSP 3560 Motivational Interviewing.....	2
-or-	
HSP 3580 The Resistive Client	
-or-	
HSP 3590 The Resistive Adolescent Client.....	1
HSP 4320 Psychopathology and the Mental Health Clinician.....	4
<i>Subtotal.....</i>	<i>67-68</i>

Electives: Addiction Studies students are strongly encouraged to take at least one of the following classes as Human Services electives** (2 credits required):

HSP 3430 Addictive Behaviors.....	3
HSP 3480 Applied Counseling Skills.....	2
HSP 4040 Cognitive Behavior Therapy.....	3
HSP 4360 Advanced Intervention Techniques.....	4
HSP 4680 Supervisory Techniques in Nonprofit	
Health Care Agencies.....	3
<i>Subtotal of electives (minimum).....</i>	<i>2</i>

<i>Total Hours for the Major with Addiction Studies Concentration.</i>	<i>69-70</i>
General Studies.....	33
Electives.....	17-18
<i>Total for Degree.....</i>	<i>120</i>

**Required prerequisite: BIO 1000-3 Human Biology for Non-Majors (may be applied to General Studies)*

***HSP 1470-Addictive Experiences: Sex, Drugs, Rock and Roll is not accepted as an elective in Human Services for Addiction Studies students.*

Please see an advisor to discuss CAC certification requirements.

Domestic Violence Counseling Concentration

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 for state 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.

Courses for Domestic Violence Counseling Concentration

Required Courses.....	Semester Hours
Human Services Core.....	47
HSP 3400 Pharmacology of Drugs and Alcohol*.....	3
HSP 3470 Counseling the Substance Abuser.....	4
HSP 3500 Domestic Violence: Patterns of Relationship Abuse.....	3
HSP 3580 Resistive Client**.....	1
HSP 3600 Domestic Violence: Perpetrators of Abuse.....	2
HSP 4280 Gender Issues in Treatment and Recovery.....	1
HSP 4290 PTSD Counseling.....	1
HSP 4320 Psychopathology and the Mental Health Clinician.....	4
Subtotal.....	66
Recommended electives (3 credits required):	
HSP 3040 Brief Therapy for Couples.....	3
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 4360 Advanced Intervention Techniques.....	4
HSP 4540 Youth, Drugs and Gangs.....	2
Subtotal of electives.....	3
Total for the major.....	69

To complete the 120 semester hours required for the degree, 18 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
PSY 3050 Psychology of Gender.....	3
PSY 3470 Psychology of Violence and Aggression.....	3
PSY 3480 The Psychology of Women.....	3
SOC 2500 Deviant Behavior in Society.....	3
SOC 3430 Sociology of Gender Roles.....	3
WMS 1001 Introduction: Woman in Transition.....	3
WMS 234B Stress Management.....	1
WMS 3310 Women and the Law.....	3
Subtotal of electives.....	18

Total Hours for the major with Domestic Violence Counseling concentration..	69
General Studies.....	33
Electives.....	18
Total for the Degree.....	120

*Required prerequisite: BIO 1000 Human Biology for Non-Majors (may be applied to General Studies)

**Note: Domestic Violence students may not substitute HSP 3590 (The Resistive Adolescent Client) for HSP 3580 (The Resistive Client).

Please see an advisor to discuss Domestic Violence certification requirements.

The Center for High Risk Youth Studies

The Center for High Risk Youth Studies offers both a concentration for the human services degree and a certificate of completion program.

High Risk Youth Studies Concentration

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. 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.....	47
CJC 3350 Seminar in Delinquency Causation, Prevention and Control.....	3
HSP 3230 High Risk and Offender Youth.....	4
HSP 3260 Survey of the High Risk Youth Integrated Services and Treatment Network.....	2
HSP 3590 The Resistive Adolescent Client.....	1
HSP 3620 Prevention Generalist Workshop.....	2
HSP 4320 Psychopathology and the Mental Health Clinician.....	4
PSY 3260 Psychology of Adolescence*.....	3
SOC 3400 Childhood and Adolescent Socialization**.....	3
SWK 3010 Social Work Services for Children and Adolescents.....	4

Total hours for the major with High Risk Youth Studies concentration.....	73
General Studies.....	33
Electives.....	14
Total for the Degree.....	120

**Required prerequisite: PSY 1001-3 Introductory Psychology (may be applied to General Studies)*

***Required prerequisite: SOC 1010-3 Introduction to Sociology (may be applied to General Studies)*

Certificate of Completion in 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 (CHRYIS) in the Human Services Department at 303-556-2951 for more information.

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

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 Resistive Adolescent Client.....	1

2003-2004 College Catalog

MDL 1300 Languages for the Professionals*	2
Elective**	3
Total hours for certificate	16

**If a student has a specific need to learn a language other than Spanish, he or she may substitute another language courses 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 course work for this requirement.*

***A three semester hour elective in a related subject area to be selected by the student in consultation with an HSP/CHRYIS advisor. Note that CJC 3350, Seminar in Delinquency Causation, Prevention and Control, is recommended, but other courses may be included as part of the certificate of completion as relevant to the individual student's needs and career goals and interests.*

The Center for Nonprofit Organization Administration

The Center for Nonprofit Organization Administration offers both a concentration for the human services degree and a certificate of completion program.

Nonprofit Organization Administration Concentration

This 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.

Required Courses	Semester Hours
Human Services Core	47
HSP 2010 Principles of Nonprofit Organization Administration	3
HSP 3610 Financial Accountability and Organizational Control in Nonprofit Organizations	3
HSP 4680 Supervisory Techniques in Nonprofit Health Care Agencies	3
HSP 4710 Critical Issues for Nonprofits	3

Choose one of the following:

HSP 3810 Fundraising Strategies for Nonprofit Organizations	3
HSP 4030 Grant Proposal Research and Writing for Nonprofit Organizations	3

In addition, students must choose 9 hours of electives from:

HSP 3210 Organizational Stability for Nonprofits	3
HSP 3510 Development and Administration of Volunteer Programs	3
HSP 4310 Human Resource Development in Nonprofit Organizations	3
Either HSP 3810 or HSP 4030 may be chosen as an elective if not previously completed	3

Total hours for the major with Nonprofit Organization Administration Concentration	71
General Studies	33
Electives	16
Total for the Degree	120

Certificate in Nonprofit Organization Administration

The 24 semester-hour Nonprofit Organization Administration certificate program is designed for working professionals and non-degree seeking students who may or may not have a baccalaureate or master's degree or agency training in the administration and management of nonprofit and public organizations. Non-degree students

2003-2004 College Catalog

may register for each course sequentially, or select only those classes that meet their professional goals (non-certificate).

Required Courses.....	Semester Hours
HSP 2010 Principles of Nonprofit Organization Administration.....	3
HSP 3610 Financial Accountability and Organizational Control in Nonprofit Organizations.....	3
HSP 4680 Supervisory Techniques in Nonprofit Health Care Agencies.	3
HSP 4710 Critical Issues for Nonprofits.....	3

Choose one of the following:

HSP 3810 Fundraising Strategies for Nonprofit Organizations.....	3
HSP 4030 Grant Proposal Research and Writing for Nonprofit Organizations.....	3

In addition, students must choose 9 hours of electives from:

HSP 3210 Organizational Stability for Nonprofits.....	3
HSP 3510 Development and Administration of Volunteer Programs.....	3
HSP 4310 Human Resource Development in Nonprofit Organizations....	3
Either HSP 3810 or HSP 4030 may be chosen as an elective if not previously completed.....	3

*Total hours for certificate.....*24

In order to qualify for the Nonprofit Organization Administration Certificate, an applicant must be accepted as an MSCD student. Each student must also complete a minimum of 150 hours of volunteer experience in a nonprofit agency while enrolled in the certificate program that applies the skills learned in the classroom. If the student can demonstrate that s/he has at least 500 hours work experience in a nonprofit organization, paid or unpaid, this requirement may be waived.

Students must complete each course in the certificate program with a grade of "C" or better. The courses cannot be taken pass/fail.

For more information, contact the Department of Human Services at 303-556-2951.

Paramedic Concentration

The paramedic concentration is designed for students interested in combining their academic experience with paramedic training. Students completing the paramedic concentration may work in a broad array of human service occupations or as paramedics. Students selecting this concentration must have completed or enroll in the Paramedic School at the Denver Health Medical Center and obtain a valid and current paramedic certificate from the State of Colorado. Training at the Paramedic School transfers into the department as follows: 8 credits for HSP 2050 and 16 for concentration electives.

Required Courses.....	Semester Hours
Human Services Core.....	47*

**HSP 2050 Human Services Practicum I will be met by the paramedic certification.*

Paramedic certification.....	16
Total Hours for the major with the Paramedic Concentration.....	63
General Studies.....	33
Electives.....	24
<i>Total for the Degree.....</i>	<i>120</i>

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. Please see an advisor for suggested courses for the minor in human services.

Parent Education Minor, see page 248 of this *Catalog*.

Industrial Design

Department of Engineering Technology and Industrial Design

Industrial designers create new product shapes, styles and redesign existing products, using new technologies, processes and materials. Many people can and do predict future products. In contrast, Industrial Designers are trained to analyze people's needs and desires, to match forms, functions, materials, processes and technologies to provide better product solutions. Industrial designers do more than predict the future—they prescribe it.

The Industrial Design Program at MSCD takes seriously the growing demand for new, creative and effective technological solutions to the problems facing contemporary society. The program's goal is to prepare the students to compete and succeed today and in the future.

Industrial Design Major for Bachelor of Science (no minor required)

Required Courses	Semester Hours
CHE 1010 Chemistry and Society (General Studies-Natural Science)	3
ENG 1010 Freshman Composition: The Essay	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation	3
MTH 1210 Introduction to Statistics (General Studies-Mathematics)	4
PHY 1000 Introduction to Physics (General Studies-Natural Science)	4
PSY 1001 Introductory Psychology (Prerequisite for PSY 4410) (General Studies-Social Science)	3
SPE 1010 Public Speaking	3
Three hours of Level II General Studies-Historical*	3
Six hours of Level II General Studies-Arts and Letters*	6
Three hours of Level II General Studies-Social Science*	3
<i>Subtotal</i>	<i>35</i>

**The multicultural graduation requirement can be satisfied by taking a multicultural course in one of these areas.*

Required Courses	Semester Hours
ART 1100 Basic Drawing I	3
ART 1200 Design Processes and Concepts I	3
ART 1210 Design Processes and Concepts II	3
ART 2002 World Art II: Art since 1200	3
ART 3340 Illustration I	3
IND 1010 Introduction to Woodworking	4
IND 1030 Finishing Materials and Processes	2
IND 1130 Introduction to Plastics	3
IND 1200 Introduction to General Metals: Cold Metals	2
IND 1220 Introduction to General Metals: Hot Metals	2
IND 1430 Industrial Drawing	2
IND 1470 Perspective Drawing	3
IND 2450 Beginning Industrial Design	3
IND 2830 Manufacturing Organization and Processes	2
IND 3410 Computer Aided Drafting for Industry	3
IND 3450 Intermediate Industrial Design	3

2003-2004 College Catalog

IND 3480 Industrial Design Model Making.....	3
IND 3530 Digital Photography.....	3
IND 3660 Computer Aided Industrial Design.....	3
IND 3800 Industrial Safety and Production.....	4
IND 3950 History of Industrial Product Design.....	3
IND 4450 Advanced Industrial Design I.....	3
IND 4460 Advanced Industrial Design II.....	3
IND 4540 Advanced Design Concept Visualization.....	3
IND 4960 Professional Industrial Internship.....	4
PSY 4410 Human Factors Engineering.....	3
<i>Subtotal</i>	76

Electives

Nine Hours Electives.....	9
Students must consult with an Industrial Design Faculty advisor in the Industrial Design programs before selecting any electives. The following courses are strongly recommended:	
IND 4030 Advanced Wood Processes.....	3
IND 4090 Advanced Modelmaking Fabrication Techniques.....	3
Other Electives.....	4
<i>Total</i>	120

Leisure Studies - Department of Human Performance, Sport and 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.

In conjunction with the core course selections, the student will select one area of concentration. The areas of concentration provide the student with specialized knowledge and skills related to particular job functions of the various recreation-related service agencies. The areas of 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.

Leisure Studies Major for Bachelor of Arts

Core CoursesSemester
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 Studies: Variable Topics.....	1-3
LES 3970 Practicum in Leisure Services	3
LES 4110 Program Development in Leisure Services	3
LES 4130 Administration of Leisure Services	

2003-2004 College Catalog

.....	3
LES 4890 Internship for Leisure Studies**.....	12
PSY 2210 Psychology of Human Development	3
Subtotal	36-
38	

Concentration	
Therapeutic Recreation Services	41
Leisure Services Management	24

**May take LES 1870 concurrently.*

***Requires a minimum of 2.75 GPA in the major*

Note: Adult, Infant and Child CPR with First Aid certification or First Aid Basics and Community CPR certifications are required and can be obtained through the American Red Cross. Students who would like more advanced training may substitute "Emergency Response" and "CPR for the Professional Rescuer" certifications, which are satisfied by completion of HPS 2060.

Areas of Concentration Therapeutic Recreation Services*

Select six hours from the following:	Semester
Hours	
HSL 1030 Skills & Methods of Teaching Physical Activities for Special Pops....	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 Skills and Methods of Teaching Stress Management	2
Subtotal	
.....	6

Required Theory Courses

BIO 3230 Principles of Human Anatomy and Physiology.....	5
LES 3330 Introduction to Therapeutic Recreation Services.....	3
LES 3430 Program Development in Therapeutic Recreation.....	3
LES 3530 Techniques in Therapeutic Recreation.....	4
LES 4030 Issues and Trends in Therapeutic Recreation.....	3
LES 4150 Advanced Techniques in Therapeutic Recreation.....	3

2003-2004 College Catalog

PSY 3620 Abnormal Psychology.....	3
Subtotal.....	
24	
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 4810 Grants & Grant Writing in Human Performance, Sport & Leisure Services.....	3
PSY 3400 Psychology of Exceptional Children.....	3
SOC 2500 Deviant Behavior in Society.....	3
SOC 3100 Death and Dying.....	3
Subtotal.....	
11	
Total for concentration.....	41
Total required for major.....	77-79

**This is an extended major--no minor is required.*

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
Subtotal	18
<i>**Take LES 2150 and LES 3830 may be taken concurrently.</i>	

Select 6 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

2003-2004 College Catalog

....3	
HSL XXXX Skills and Methods Course (maximum of 2 credits).....2	
LES 2210 Camping and Outdoor Recreation	3
LES 2330 Advocacy, Leisure, and the Aging Adult	3
LES 3990 Field Experience in Leisure Studies (maximum of 3 credits).....1-3	
LES 4550 Management of Aquatic Resources	3
LES 4630 Leisure Service Programs for the Older Adult	3
LES 4730 Sociology of Athletics in American Society.....1-3	
LES 4810 Grants & Grant Writing in Human Performance, Sport & Leisure Services.3	
SPA 1110 Basic Conversational Spanish I.....3	
SPA 1120 Basic Conversational Spanish II.....3	
Subtotal	6
Total for concentration.....	24
Total required for major.....	60-62

**This is an extended major - no minor is required.*

Summary:

Leisure Studies Major Core	36-38
Therapeutic Recreation Concentration.....	41
Leisure Services Management Concentration.....	24

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
Subtotal	15

Select 6 hours from the following (in consultation with an advisor):

LES 2150 Maintenance of Leisure Service Facilities and Recreation Equipment	3
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2003-2004 College Catalog

LES 2210 Camping and Outdoor Recreation	3
LES 2330 Advocacy, Leisure, and the Aging Adult	3
LES 3330 Introduction to Therapeutic Recreation Services	3
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 & Grant Writing in Human Performance, Sport & Leisure Services	3
Subtotal	6
Total Hours Required for the Minor	21

**LES 1870 and LES 2110 may be taken concurrently.*

Mechanical Engineering Technology Program **Department of Engineering Technology and Industrial Design**

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 more than 60 percent of the courses requiring laboratory work in addition to lectures. Under the revised rules and regulations of the Colorado State Board for Professional Engineers and Professional Land Surveyors, ET students at MSCD may take the Fundamentals of Engineering Examination within 30 semester hours of graduation. It is recommended that students take Fundamental Engineering (FA) Exam during their senior year in lieu of the MET assessment test.

The MET program offers both day and evening classes to meet the needs of its diverse student population. The MET curriculum 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.

Besides traditional classes, the MET program also offers state-of-the-art computer-aided engineering courses to keep students updated with current engineering technology and computer applications in the industry. These new computer-aided engineering courses will provide students with training in the areas of computer programming, computer-aided design, computer-aided manufacturing, three-dimensional modeling, and computer-aided analysis. Graduates enter the engineering profession as engineering technologists. After taking the Fundamentals of Engineering (F.E.) examination, some graduates choose to begin the six-year process, at a minimum, to become a registered professional engineer (P.E.). Some attend graduate school to pursue further education. The majority obtain 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.

For every MET course, a minimum grade of "C" is required for all prerequisites before a student can progress. If considering graduate school studies in engineering or physical sciences, students are encouraged to elect the recommended mathematics minor. A full-time student may complete the program in four years (eight semesters). Since many of the courses build on each other, it is important that the courses are taken in a proper order.

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	3
MET 1210 Technical Drawing II	3
MET 1310 Principles of Quality Assurance	3
MET 2150 Mechanics I-Statics	3
MET 2200 Materials of Engineering	3
MET 3110 Thermodynamics	3
MET 3130 Mechanics of Materials	3
MET 3135 Mechanics of Materials Laboratory	1
MET 3160 Mechanics II-Dynamics	3
MET 3180 Fluid Mechanics I	3
MET 3210 Introduction to Computer Aided Engineering-Programming	4
MET 3410 Geometric Dimensioning and Tolerancing	3
MET 4000 Project Engineering	3
<i>Subtotal</i>	<i>44</i>

Additional Technical Course Requirements:	Semester Hours
EET 2000 Electric Circuits and Machines	3
EET 3010 Industrial Electronics	4
<i>Subtotal</i>	<i>7</i>

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 XXXX Level II General Studies - Historical*	3
XXX XXXX Level II General Studies - Arts and Letters*	3
XXX XXXX Level II General Studies - Social Science*	3
<i>Subtotal</i>	<i>53</i>

**Some of these courses may be used to satisfy General College Requirements, including the 3 credit hour Multicultural requirement.*

Areas of Concentration (Choose one Concentration)

Computer Aided 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

2003-2004 College Catalog

MET 3XXX Upper Division Elective.....	3
MET 4010 Advanced Manufacturing Technology**.....	3
MET 4080 Computer-Aided Manufacturing	3
<i>Subtotal</i>	25
<i>Total for Manufacturing</i>	129

***Senior Experience course*

Mechanical

MET 3070 Machine Design.....	3
MET 3120 Heat Transfer	2
MET 3140 Heat Transfer Laboratory	1
MET 3190 Fluid Mechanics II	3
MET 3320 Instrumentation Laboratory	3
MET 3XXX Upper Division Elective.....	3
MET 3XXX Upper Division Elective.....	3
MET 4070 Computer-Aided Design**	3
MET 4280 Advanced Energy Technology	3
<i>Subtotal</i>	24
<i>Total</i>	128

***Senior Experience courses.*

Recommended Math Minor for MET Students

The Mechanical Engineering Technology Program recommends that students pursue a minor in Mathematics. The following is the combination of math classes for MET students to obtain a minor in Math.

Required Courses	Semester Hours
MTH 1410 Calculus I.....	4
MTH 1510 Computer Programming: FORTRAN.....	4
MTH 2410 Calculus II.....	4
MTH 2420 Calculus III.....	4
MTH 3140 Linear Algebra.....	3
MTH 3210 Probability and Statistics.....	4
<i>Subtotal</i>	23

Note: Some of the classes are required for the MET major.

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 Department

The mission of the nursing department is to

- provide associate degree and diploma nurses with a high quality, accessible, enriched Baccalaureate Registered Nurse Completion Program that provides the knowledge, skills, and performance competencies to improve nursing practice in a diverse global and technological community

2003-2004 College Catalog

- encourage students to think critically, be receptive to change, and anticipate future health care needs of society
- prepare graduates for advanced education in nursing and to seek continuous professional development.

One way this mission is accomplished is with partnerships in health care in the community.

The purposes of the upper-division Baccalaureate Registered Nurse Completion Program are to:

- Advance the health of diverse communities through nursing.
- Influence the area in which registered nurses practice.
- Promote open-mindedness and receptivity to change, growth and diversity.
- Encourage critical thinking and examination of controversy, research, intuitive knowledge and other ways of knowing.
- Provide preparation for graduate school.
- Stimulate continuous personal and professional growth and development.

Students desiring to enter the baccalaureate registered nurse completion program in the Nursing 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 Nursing Department.

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.

The Baccalaureate Registered Nurse Completion Program is accredited by the National League for Nursing Accrediting Commission, 61 Broadway–33rd Floor, New York, New York 10006 (212-363-5555 ext. 153). For more information call 303-556-4391 or go to South Classroom 226. Visit our website at <http://www.mscd.edu/~nursing/>.

Educational 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.
- 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 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.

2003-2004 College Catalog

- 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 the state in which he/she is practicing.
- 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 Nursing Department.
- have copies of transcript evaluation from MSCD on file in the Nursing Department.
- have computer skills in word processing, spreadsheets and use of the internet.
- have completed 30 semester hours of college-level course work (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 (30 semester hours of lower division nursing credit) by one of the following:
 - a. graduate from a nursing school in the United States;
 - b. graduate from a non-U.S. nursing program recognized in that country as post secondary education as determined through the MSCD transfer office; or
 - c. graduate from a non-U.S. Nursing program not recognized in that country as post secondary education but possesses a registered nurse license to practice nursing in the United States.

The nursing program offers day and evening classes one day a week (Tuesdays) and online 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	3
NUR 3580 Management Issues in Nursing	4
NUR 3650 Ethical Decision Making: Application to Nursing	3
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 Senior Experience	4
<i>Total</i>	34

Required Support Courses

ANT 3480 Cultural Diversity in Health and Illness	3
HES 3750 Clinical Pathophysiology I	3
MTH 1210 or another Approved Statistics Course	3-4
<i>Total</i>	9-10

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
HES 4750 Clinical Pathophysiology II	3
HCM any course	2-6
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 (see Admission Requirements on page 246)	30
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Nutrition Minor - Department of Health Professions

The minor in nutrition is designed to complement a major chosen by a student and/or for individuals who wish to establish self-improvement programs by gaining a basic understanding of nutritional studies. A minimum of 18 semester hours is required to complete the minor.

This nutrition minor will not meet registration requirements for qualifications as a Registered Dietitian in the State of Colorado. An R.D. (Registered Dietitian) is required to provide nutritional counseling to individuals. A major in nutrition, an internship and passing a national exam are all requirements to obtain the RD

Required Courses:

NUT 2040 Introduction to Nutrition	3
NUT 3080 Maternal and Child Nutrition	3
NUT 3100 Nutrition and Aging	3
NUT 3200 Nutrition and Sports Performance	3
NUT 3210 Community Nutrition	3
Science elective*	3
<i>Total for minor</i>	18

**A course in chemistry, biochemistry, or biology is required. The course should be selected in consultation with an advisor in the Department of Health Professions.*

Parent Education Minor-Departments of Human Services and Psychology

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. 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 consult an advisor in the Human Services or Psychology Departments.

Required Courses.....	Semester Hours
EDU 4070 Designing and Implementing Programs for Adult Learners...	3
HES 3070 Parental Health Care Issues.....	3
HSP 2040 Family Systems.....	4
PAR 2050 Introduction to Parent Education.....	3
PAR 3070 Working with the Contemporary Family.....	3
PAR 4890 Parent Education Field Placement.....	3
PSY 1800 Developmental Educational Psychology	
-or-	
PSY 2210 Psychology of Human Development	
-or-	
PSY 3250 Child Psychology.....	3-4
PSY 2240 Parenting Techniques.....	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 human services, nursing, or psychology, 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.

Reading Program - Department of Teacher Education

2003-2004 College Catalog

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 area is a dynamic program in literacy that prepares students for careers as instructional leaders in literacy programs. Students in elementary and early childhood licensure programs can elect to complete either a minor (BA seeking students) or a certificate in reading (post BA students or those with other minors). Secondary licensure students can earn a certificate in reading. Each option includes knowledge of the reading process, factors influencing emergent literacy, preparation and implementation of reading lessons and assessments, development of instructional materials, identification of reading disabilities, assessment and interpretation of test results, and a closely supervised remedial reading tutorial experience. Teacher licensure candidates at all levels can greatly benefit from this program, since teaching literacy is critical at every level. Students seeking teacher licensure should read the teacher licensure sections of this Catalog, pages 255-268, and they should stay in regular contact with their advisors.

Reading Minor for Early Childhood Licensure Students

Required Courses	Semester Hours
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3120 Developing Print Literacy: Preschool-Grade 3.....	3
RDG 3140 Integration of Reading and Writing Across the Curriculum, K-12	3
RDG 3530 Techniques of Teaching Reading to Non-English Speakers.....	3
RDG 4250 Literacy Assessment: Theory and Practice.....	4
RDG 4600 Practicum in Literacy Enhancement.....	3
<i>Total</i>	19

Reading Minor for Elementary Licensure Students

Required Courses	Semester Hours
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3140 Integration of Reading and Writing Across the Curriculum, K-12.	3
RDG 3530 Techniques of Teaching Reading to Non-English Speakers.....	3
RDG 4000 Literacy Instruction in Grades K-6.....	3
RDG 4250 Literacy Assessment: Theory and Practice.....	4
RDG 4600 Practicum in Literacy Enhancement.....	3
<i>Total</i>	19

Note: A letter grade of at least a "C" must be attained in each of the courses in the reading minor.

Certificate Programs Available

Reading Certificate for Post BA Early Childhood Students

Required Courses	Semester Hours
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3120 Developing Print Literacy: Preschool-Grade 3.....	3
RDG 3140 Integration of Reading and Writing Across the Curriculum, K-12.	3
RDG 3530 Techniques of Teaching Reading to Non-English Speakers.....	3
RDG 4250 Literacy Assessment: Theory and Practice.....	4
RDG 4600 Practicum in Literacy Enhancement.....	3
<i>Total</i>	19

Reading Certificate for Post BA Elementary Students:

2003-2004 College Catalog

Required Courses	Semester Hours
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3140 Integration of Reading and Writing Across the Curriculum, K-12.	3
RDG 3530 Techniques of Teaching Reading to Non-English Speakers.....	3
RDG 4000 Literacy Instruction in Grades K-6.....	3
RDG 4250 Literacy Assessment: Theory and Practice.....	4
RDG 4600 Practicum in Literacy Enhancement.....	3
<i>Total</i>	19

Reading Certificate for Secondary Licensure Students or Post BA Secondary Students:

Required Courses	Semester Hours
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
RDG 3140 Integration of Reading and Writing Across the Curriculum, K-12.	3
RDG 3530 Techniques of Teaching Reading to Non-English Speakers.....	3
RDG 4250 Literacy Assessment: Theory and Practice.....	4
RDG 4600 Practicum in Literacy Enhancement.....	3
<i>Total</i>	17

Highly Recommended

RDG 3580 Reading in the Bilingual-Bicultural Classroom (competency in Spanish required).....	3
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Each of the courses has specific prerequisites. Please call the Teacher Education Department for more information, 303-556-6228.

Note: A letter grade of at least a “C” must be attained in each of the courses in the reading certificate. The courses cannot be taken pass/fail.

Special Education Department of Teacher Education

Special Education Major for Bachelor of Arts

The special education major is a course of study that will prepare students to meet the educational needs of children and adolescents with moderate disabilities. The curriculum incorporates the Performance-Based Standards for Colorado Teachers (2000), the Colorado Model Content Standards, Teacher I: Moderate Needs, the core standards for the Exceptional Needs Specialist set forth by the National Board for Professional Teaching Standards (1997), and the NCATE/CEC International Standards for the Preparation and Certification of Special Education Teachers (1996). All special education majors will take a General Studies program and a speech core that prepares them with the knowledge necessary to teach content within the context of both special education and general education. The education concentrations provide teacher preparation for effective instruction within the context of an inclusionary program. Students should consult with a Special Education faculty advisor for information regarding an added endorsement for early childhood or elementary education.

Special Education Core

The special education curriculum is organized into sequences of course work that provide students with guidance in program planning. They are comprised of course clusters that students may take in any order; however, students may not select courses from a higher numbered sequence until the courses in the previous sequence are successfully taken.

Sequence I Courses

EDT 2890 Introduction to Adaptive Technology.....	2-3
SED 2200 Diversity, Disability and Education.....	3

2003-2004 College Catalog

SED 2400 Classroom Organization and Instruction.....	2
SED 2700 Social/Emotional Development and Disorders.....	3
SED 2800 Evaluation and Program Planning: Severe Needs.....	2
SED 3600 The Exceptional Learner in the Classroom.....	3
Total.....	15-16

Sequence II Courses

RDG 3110 Foundations of Literacy Instruction in Grades P-6*..	3
SED 3700 Educational Exceptionality and Human Growth.....	3
SED 3800 Differentiated Instruction for Students with Disabilities.....	3
Total.....	9

*(Early Childhood students substitute ECE 2340 and ECE 2350)

Sequence III Courses

SED 4050 Evaluation and Program Planning: Moderate Needs....	3
SED 4200 Language Development and Reading Disabilities.....	3
SED 4250 Effective Behavioral Support Systems.....	3
Total.....	9

Sequence IV Classes

SED 4430 Assessment, Instruction and Collaboration Practicum: Elementary.....	3
SED 4440 Assessment, Instruction and Collaboration Practicum: Secondary.....	3
Total.....	6

Sequence V Courses*

SED 4490 Special Education Student Teaching and Seminar: Elementary.....	6
-or-	
SED 4500 Special Education Student Teaching and Seminar: Secondary.....	6
Total.....	6

Total.....45-46

**Students who are not seeking licensure may substitute recommended electives for student teaching courses.*

Speech Core

In addition to the special education core, majors in special education must complete the following speech core. The core provides a strong foundation in speech, language acquisition, and communication that will enhance the student's understanding of language development as related to special education.

Students who are interested in seeking dual licensure in special education and secondary education may replace the speech core with a different content area. They must consult an advisor in the area for content and General Studies requirements. Students who are not interested in pursuing dual licensure should take the speech core and follow the General Studies for elementary or early childhood education.

Required Courses.....	Semester Hours
SPE 1010 Public Speaking*.....	3
SPE 1500 Introduction to Communication Disorders.....	3
SPE 1610 American Sign Language I.....	3
SPE 2890 Language Acquisition.....	3

2003-2004 College Catalog

SPE 3570 Diagnostic Procedures in Communication Disorders....	3
SPE 3590 Classroom Intervention for Communication Disorders..	3
SPE 3620 Aural Rehabilitation.....	3
SPE 3740 Psychology of Communication*.....	3
SPE 3540 Phonetics and Language Sample Analysis	
-or-	
SPE 4510 Language Disorders.....	3
THE 4220 Creative Dramatics for the Classroom Teacher.....	3
<i>Total</i>	30
<i>*Also counted as General Studies.</i>	

Education Concentrations

In addition to the special education and speech cores, students who major in special education will choose one of three education concentration areas: early childhood education, elementary education, or secondary education. This curriculum design is considered to be a significant program strength. The education concentration will allow the student to obtain content and experience in the regular education environment. It has long been recognized that the best special education teachers are those who have also been prepared for general professional education in addition to their special education training. These teachers are well versed in the scope and sequence of the typical education curriculum and can meet the educational needs of the exceptional learner in the inclusive classroom as well as the special education classroom. The courses for the three education concentration areas are as follows:

Early Childhood Education Concentration

ECE 2340 Foundations of Early Childhood Education.....	3
ECE 2350 Foundations of Early Childhood Education: Field Experience..	1
ECE 3330 Social Studies and Expressive Arts for the Young Child.....	3
ECE 4330 Science, Health, and Mathematics for the Young Child.....	3
ECE 4390 Student Teaching and Seminar: Early Childhood (Preschool through Third Grade).....	6
PSY 1800 Developmental Educational Psychology.....	4
RDG 3120 Developing Print Literacy: Preschool-Grade 3.....	3
<i>Total</i>	23

Elementary Education Concentration

EDU 4100 Integrated Methods of Teaching Language Arts and the Social Studies: K-6.....	3
EDU 4105 Integrated Language Arts and Social Studies Field Experience: K-6.....	1
EDU 4120 Integrated Methods of Teaching Science, Health and Mathematics: K-6.....	3
EDU 4125 Integrated Science, Health and Mathematics Field Experience..	1
EDU 4190 Student Teaching and Seminar: Elementary K-6.....	6
PSY 1800 Developmental Educational Psychology.....	4
RDG 4000 Literacy Instruction in Grades K-6.....	3
<i>Total</i>	21

Secondary Education Concentration

EDS 3120 Field Experiences in Multicultural Urban Secondary Schools..	2
EDS 3200 Educational Psychology Applied to Teaching.....	3
EDS 3210 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School.....	3
EDS 3220 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School.....	2
EDS 4290 Student Teaching and Seminar: Secondary 7-12*	
-or-	
SED 4500 Special Education Student Teaching and Seminar: Secondary...	6

2003-2004 College Catalog

RDG 3280 Teaching Literacy Skill Development in the Content Areas....4
Total.....20
**Special Education Majors with a Secondary Concentration must take 12 hours of Special Education Student Teaching (SED 4490 and SED 4500) if they do not have a secondary content area.*

Summary of Special Education Major

Special Education Major with Early Childhood Education Concentration

Special Education Core.....42
Speech Core.....24
Early Childhood Concentration.....23
General Studies.....38
Total Program Hours.....127

Special Education Major with Elementary Education Concentration

Special Education Core.....45
Speech Core.....24
Elementary Education Concentration...21
General Studies.....38
Total Program Hours.....128

Special Education Major with Secondary Education Concentration

Special Education Core.....45
Speech Core or Content Area**.....24-30
Secondary Education Concentration...20
General Studies**.....38
Total Program Hours.....127-133

***Students who are interested in seeking dual licensure (special education with secondary education) may choose to substitute a content area in place of the speech core and consult an advisor in this area for content and General Studies requirements. Students who are not interested in pursuing dual licensure should take the speech core and follow the General Studies for elementary or early childhood education.*

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. Students seeking licensure need to complete additional requirements including gaining formal admission to the Teacher Education Program and student teaching. Contact the Teacher Education Department 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 Differentiated Instruction for Students with Disabilities...3
SED 3850 Diagnosis and Evaluation of Exceptional Students.....3
SED 4000 Transitions and Collaborative Practices.....3

2003-2004 College Catalog

SED 4200 Language Development and Learning Disabilities.....	3
SED 4250 Effective Behavioral Support Systems.....	3
<i>Total</i>	18

MSCD/UCD Teacher I

SED 3600 The Exceptional Learner in the Classroom.....	3
SED 3700 Educational Exceptionality and Human Growth.....	3
SED 3800 Differentiated Instruction for Students with Disabilities...	3
SED 3850 Diagnosis and Evaluation of Exceptional Students.....	3
SED 4000 Transitions and Collaborative Practices.....	3
SED 4250 Effective Behavioral Support Systems.....	3
SED 4490 Special Education Student Teaching and Seminar.....	6
<i>Total</i>	24
PLUS additional UCD courses	

Surveying and Mapping

Department of Engineering Technology and Industrial Design

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 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.

The Head of the Program, or designee, must approve all technical electives.

All students who are considering the major or minor in surveying and mapping are expected to consult with faculty for advising.

The minor in mathematics is required for all students in the program, but is optional for students who already have a baccalaureate degree and are seeking a second degree in surveying.

All majors in surveying and mapping are required to complete with a minimum grade of "C" all courses prefixed with SUR, CET, MTH and PHY.

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
GEL 1010 General Geology	4
GIS 4840 Remote Sensing	3
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

2003-2004 College Catalog

SUR 3100	Surveying Data Adjustment & Analysis I	3
SUR 3150	Astronomy for Surveyors	2
SUR 3300	Photogrammetry	3
SUR 3540	Boundary Law I	3
SUR 3660	Land Information Systems	3
SUR 3700	Geodesy I	3
SUR 4320	Geodetic Survey Methods	4
SUR 4510	Map Projections and Coordinate Systems	3
Subtotal	.....	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
Three hours of General Studies-Historical**	.....	3
Six hours of General Studies-Arts and Letters**	.....	6
Six hours of General Studies-Social Science**	.....	6
Subtotal	.....	44

***Selecting any General Studies level II course approved for multicultural credit will satisfy the multicultural requirement of three credits.*

Approved Technical Electives*	14
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Required Math Minor

MTH 1410	Calculus I	4
MTH 2140	Computational Matrix Algebra	2
MTH 2410	Calculus II	4
MTH 3210	Probability and Statistics	4
Computer Science Programming Elective (One of the following):		
CSI 1050	Computer Science I.....	4
CSS 1247	Introduction to Programming: Visual Basic.....	4
MTH 1510	Computer Programming: FORTRAN.....	4
Approved Mathematics Elective (upper-division)	.....	4
Subtotal	.....	22
Total	.....	129

**At least one elective must be 3000 or 4000 level.*

General Studies Requirements

The Level I mathematics requirements is met by a course taken from the mathematics minor.

Minor in Surveying*

Required Technical Studies	Semester
Hours	
SUR 1510 Surveying I**	4

2003-2004 College Catalog

SUR 2520 Surveying II**	4
SUR 2550 Surveying Computations***	3
SUR 2620 Survey Drafting - CAD**	3
SUR 3300 Photogrammetry**	3
SUR 4510 Map Projections and Coordinate Systems	3
Technical Elective	2
Total	22

**Requirements for this minor may change. Check with a program advisor.*

***All prerequisites for this course must be satisfied.*

****The prerequisite SUR 3700 is waived.*

Teacher Education Department

The Department of Teacher 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 bilingual education (add-on endorsement), early childhood (preschool through third grade), elementary (K-6th grade), K-12 education, secondary (7-12th grade) education, and special education, moderate needs: teacher I (ages 5 through 21). Minors are available in bilingual/bicultural education, early childhood education, elementary education, parent education, reading, secondary education, and special 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.

The underlying theme of Teacher Education is The Teacher as a Decision Maker in Diverse Contexts. Students' programs include General Studies, majors and minors, and teacher licensure course work. 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 to state and national content standards in the various content areas and to demonstrate skill in all professional licensure standards for teachers. Teacher candidates exiting the program will be able to:

- study and integrate the broad range of disciplines within the liberal arts.
- become reflective, critical thinkers in diverse contexts.
- link research, theory, and philosophy to practice.
- use varied pedagogical models for planning, implementing, and evaluating instruction in diverse contexts.
- engage in lifelong learning in diverse contexts.

Teacher Education at MSCD is fully accredited by the National Council for the Accreditation of Teacher Education and the Colorado Department of Education. Teacher Education programs were recently approved by the CCHE having met the new Colorado Performance-based Standards for Teachers.

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 and professional knowledge needed. Professional Education programs in Bilingual, Early Childhood, Elementary, K-12, Secondary and Special Education offer teacher education courses, clinical experiences, and student teaching. The Reading Program offers required professional courses for students in each program. The completion of a licensure program, a passing score on the PLACE content exam, and the completion of a bachelor's degree in an approved major enable students to apply to the Colorado Department of Education for teacher licensure at designated grade levels.

2003-2004 College Catalog

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 granted by the Colorado Department of Education and is based on a recommendation by the director of the Teacher Education Center, approval of appropriate documents and assessments, and payment of fees. Students receive endorsements in the level and/or subject area in which they are qualified to teach. Teacher Education at MSCD also provides outreach to in-service teachers, including first-year assistance, mentor training, and summer workshops.

The following licensure areas and majors have been approved by the Colorado Commission on Higher Education and the Colorado Department of Higher Education effective 2001-2002.

EARLY CHILDHOOD LICENSURE with the following majors:

Behavioral Science
English
History
Human Development
Speech Communication

ELEMENTARY LICENSURE with the following majors:

Behavioral Science
Biology
English
History
Modern Languages-Spanish Concentration
Speech Communication

SECONDARY LICENSURE with the following endorsements using the major(s) indicated:

Endorsement in Language Arts: English
Endorsement in Mathematics: Mathematics
Endorsement in Science: Biology or Chemistry or Environmental Science
Endorsement in Foreign Language: Modern Languages
Endorsement in Social Studies: Behavioral Science or Chicano Studies or Economics or History or Political Science

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

SPECIAL EDUCATION LICENSURE

See Special Education on page 250 of this *Catalog*.

ADDED ENDORSEMENTS: Bilingual Education, Special Education

Students who are enrolled at MSCD and admitted to a teacher preparation program prior to January 15, 2001 will be permitted to complete the program to which they were admitted although some course requirements may be modified. If a teacher preparation program has been 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 were 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.**

THE TEACHER EDUCATION CENTER

The Teacher Education Center (TEC) is located in Central Classroom 101 and performs essential administrative functions for all of the Teacher Education Programs. The Office of Clinical Services (OCS), which is administratively part of the TEC, is located in West Classroom 141. The TEC manages all procedural steps and processes related to students moving through the teacher education program from onset to licensure, ensuring quality and equity. The four key functions of the Teacher Education Center are:

1. Provisional/permanent admission to all teacher education programs (TEC).
2. Ongoing monitoring of student progress through the teacher education programs (TEC).
3. Application to student teaching for all teacher education programs (OCS).
4. Recommendation to the Colorado Department of Education for licensure (OCS).

The other responsibilities of the Teacher Education Center are to provide:

- initial informational/advising services
- a records center for students needing to check files/paperwork
- a monitoring service that tracks students as they progress through a teacher education/licensure program
- orientation/informational meetings open to all students
- administrative service for the bilingual/bicultural program offered by the Teacher Education Department
- administrative services for the Teachers for Colorado Program, Denver Public Schools Paraprofessional to Teacher Program, and the Colorado Mountain College Paraprofessional to Teacher Program

PROVISIONAL ADMISSION TO TEACHER EDUCATION PROGRAMS

A provisional admittance card will be issued in the Teacher Education Center to all students entering a teacher education program. With provisional admission, students are assigned an education advisor to consult during the first semester.

Previously taken education courses may be considered as substitutions for MSCD courses if they are less than seven years old and are a close match to the required courses. Students should meet with their education advisor for assistance. Students must certify that they left any previous education program in good standing and were eligible to return by providing a letter of verification.

FORMAL ADMISSION TO TEACHER EDUCATION PROGRAMS

Candidates must submit an *Application for Admission into a Teacher Education Program* and copies of transcripts of all college work to the Teacher Education Center no later than the beginning of the third week of the second semester of education course work. Candidates must document eligibility by providing the following:

1. Providing evidence of the following Basic Skills:

Degree seeking students who have successfully completed ENG 1010 and ENG 1020 (or equivalent), with a grade of “C” or better, will be initially considered as having met the “MSCD Basic Skills Requirement in Writing.”

Those teacher licensure candidates who are college graduates (also called post baccalaureate or post bac students) will be initially considered as having met the “MSCD Basic Skills Requirement in Writing” through their earned college degree.

However, teacher licensure candidates (either post bac or undergraduate degree seeking) who do not demonstrate satisfactory writing skill proficiency as they progress in their teacher preparation course work will be monitored and required to develop and follow a writing remediation plan in order to exit from the program.

Math Skills—Candidates must demonstrate **at least one of the following**:

- Meet the prerequisites for MTH 1610:
 - score of 9 or better on the Assessment Test or
 - successful completion of Intermediate Algebra or
 - ACT score of 24 for the Math Section or
 - SAT score of 560 on the Math Section OR
- Completed MTH 1610 with a minimum grade of C if taken prior to Spring 2001 (transfer and post-baccalaureate candidates must have three (3) semester hours of college-level mathematics with a grade of C or better.

Oral Competency—Candidates must demonstrate **at least one of the following**:

- Grade of B or better in Speech 1010 (or its equivalent) **OR**
- Successful completion of MSCD's Oral Exam taken at the Assessment Center. This option is appropriate for students who are transfer or post-baccalaureate or received a grade of "C" in SPE 1010. Candidates with a "D" or "F" in SPE 1010 or its equivalent must retake the course.

2. Other Evidence to be provided to gain formal admission:

- 2.50 GPA overall or 2.50 GPA on the most recent 30 semester hours of college course work completed
- Negative TB test (no more than one year old)
- Worker's Compensation Form completed
- Fingerprinting and CBI clearance initiated

POST BACCALAUREATE CANDIDATES—LICENSURE ONLY

Post Baccalaureate candidates must provide evidence of a baccalaureate degree. In consultation with an education or content advisor, a draft individualized plan will be developed based on an analysis of transcripts to ensure the necessary and appropriate content knowledge and to meet the Colorado endorsement standards to efficiently bridge the candidate's background to the required subject area and education requirements. Equivalent courses will be credited when feasible and appropriate. Final approval of the individualized plan must be obtained from the designated advisor. Post baccalaureate students should begin the program by taking teacher education classes.

The admission criteria for post baccalaureate students seeking licensure include evidence of having at least a bachelor's degree and meeting the criteria for formal admission. Upon application to the teacher education programs, an official transcript from the accredited college where the candidate received the baccalaureate degree must be sent to the Transfer Center. Faculty in the Teacher Education Department, upon consultation with the appropriate content area faculty, will review the transcript for completed course work appropriate for the endorsement being sought. The post baccalaureate candidate must successfully complete any advisor identified courses in the content (endorsement) area, in addition to the professional sequence course work, as part of their approved teacher preparation program. It is **STRONGLY** recommended that post baccalaureate candidates demonstrate successful completion of the PLACE Content exam as soon as is practical.

POST BACCALAUREATE CANDIDATES RESIDENCE REQUIREMENT FOR STUDENT TEACHING

Post-Baccalaureate students who are seeking teacher licensure and are not degree seeking may become eligible to student teach with a minimum of 9 credit hours of teacher education coursework. They must, of course, meet all licensure requirements.

If only 9 credit hours are to be completed at MSCD, the candidate must provide a letter of recommendation from the previous teacher preparation program or the immediate supervisor if employed in an educational setting (i.e. department chair, principal, superintendent, etc.) attesting to the candidate's professional dispositions and academic standing.

Eligibility for Student Teaching

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 the applications are due the third Friday in February.

All students must:

- Have been formally admitted to the teacher licensure program.
- Successfully complete all other college programs and degree requirements.
- Have a minimum GPA of 2.75 in all course work 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.
- Have a physical examination report including tuberculosis clearance.
- Have approval of the appropriate screening committee, if applicable.
- Submit verification that the program plan has been approved for student teaching by the student's education advisor.
- Complete at least 20 credit hours in residence at MSCD prior to student teaching. Post bac students see "Post-Baccalaureate Residency Requirement for Student Teaching" on previous page.
- Have information about Teacher Work Sample requirement and performance-based evaluation of student teaching.
- Provide evidence of having **passed** the PLACE content examination. Please check with the Teacher Education Department about the need to pass the exam before student teaching.
- Complete MTH 1610 with a grade of "C" or better (or if a transfer or post-baccalaureate student, equivalent course that meets performance standard #2 of CPBS). Students whose major is mathematics, chemistry, environmental science or economics are exempt from this requirement.

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 required subject area courses in the student's teaching area.
- Have evaluations from two pre-student teaching field experiences that indicate developing proficiency in all course-related standard elements.
- 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 demonstrated proficiency through their teacher candidate portfolio which includes the teacher work sample.
- Submit evaluations of the student teaching experience from the cooperating teacher and the college supervisor that indicate proficiency in all standards/standard elements.

- Pass the PLACE Content Area assessment.

PROFESSIONAL EARLY CHILDHOOD EDUCATION LICENSURE

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. Approved majors are listed on page 256. For further information, students should contact the Teacher Education Center (CN 101) first.

General Course Requirements for Students Seeking Licensure in Early Childhood Education

Content area knowledge for early childhood education is provided by the student's major and by the specific general course requirements listed below. In most cases the courses listed below may be applied towards MSCD's General Studies requirements. However, a student's major program may have some specific General Studies requirements/restrictions that must also be met to complete the baccalaureate degree. Students should consult with an advisor in their major about specific General Studies requirements and with an education advisor about possible changes in the courses below.

ART/MUS 2040 An Integrated Approach to Art and Music.....	3
ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation...	3
ENG 2460 Introduction to Children's Literature*.....	3
GEG 1920 Concepts and Connections in Geography.....	3
HIS 1210 American History to 1865	
or	
HIS 1220 American history since 1865.....	3
MTH 1610 Integrated Mathematics I.....	4
MTH 2620 Integrated Mathematics II.....	4
PSC 1010 American National Government.....	3
SCI 2610 Integrated Natural Science I.....	3
SCI 2620 Integrated Natural Science II.....	3
SPE 1010 Public Speaking.....	3
Total.....	38

**English majors must select another Level II Arts and Letters General Studies course and will take ENG 3461 for this requirement.*

Professional Early Childhood Licensure Sequence

Required Courses.....	Semester
Hours	
ECE 2340 Foundations of Early Childhood Education*.....	3
ECE 2350 Foundations of Early Childhood Education: Field Experience*.....	1
ECE 3150 Developmentally Appropriate Practice I: Planning and Management with Literacy Emphasis**.....	3
ECE 3160 Developmentally Appropriate Practice I: Field Experience**.....	1
ECE 3330 Social Studies and Expressive Arts for the Young Child.....	3
ECE 3350 Documentation, Assessment, and Decision-Making for Early Childhood.	3
ECE 4330 Science, Health, and Mathematics for the Young Child.....	3
ECE 4370 Developmentally Appropriate Practice II: The Integrated Curriculum and Technology***.....	3
ECE 4380 Developmentally Appropriate Practice II: Field Experience***.....	1
ECE 4390 Student Teaching and Seminar: Early Childhood (Preschool through Third Grade).....	12
PSY 1800 Developmental Educational Psychology.....	4
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3120 Developing Print Literacy: Preschool-Grade 3**.....	3

2003-2004 College Catalog

SED 3600 The Exceptional Learner in the Classroom.....	3
Total.....	46

**These two courses must be taken concurrently.*

***These three courses must be taken concurrently.*

****These two courses must be taken concurrently.*

Early Childhood Administration

Students who are degree seeking and 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. Admission to teacher education is required since students will be working with pupils in schools.

Required Courses.....	Semester Hours
Early Childhood Education Minor (see page 267).....	23
Additional Required Courses for Administration	
ECE 3340 Administration of Early Childhood Programs.....	4
ECE 4360 Cultural Influence on the Socialization of Children	
-or-	
SOC 1010 Introduction to Sociology.....	3
NUT 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
Total.....	40
Highly Recommended Course:	
HPS 2060 Emergency Rescue/First Responder & CPR.....	3

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 an advisor in the Early Childhood Program for additional information.

PROFESSIONAL ELEMENTARY EDUCATION LICENSURE

The Elementary Licensure Program prepares students to teach the multidisciplinary curriculum in elementary classrooms kindergarten through sixth grade. Through the sequence of courses and field experiences, the student satisfies all of the State of Colorado's academic standards for licensure. Approved majors are listed on page 256. Information meetings for new and prospective students are held on a weekly basis by the Teacher Education Center. Call 303-556-6228 to receive a list of meeting times and places.

General Course Requirements for Students Seeking Licensure in Elementary Education

Content area knowledge for elementary education is provided by the student's major and by the specific general course requirements listed below. In most cases the courses listed below may be applied towards MSCD's General Studies requirements. However, a student's major program may have some specific General Studies requirements/restrictions that must also be met to complete the baccalaureate degree. Students should consult with an advisor in their major about specific General Studies requirements and with an education advisor about possible changes in the courses below.

Required Courses.....	Semester Hours
ART/MUS 2040 An Integrated Approach to Art and Music.....	3
ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research, and Documentation..	3
ENG 2460 Introduction to Children's Literature*.....	3
GEG 1920 Concepts and Connections in Geography.....	3
HIS 1210 American History to 1865.....	3
-or-	

2003-2004 College Catalog

HIS 1220 American History since 1865.....	3
MTH 1610 Integrated Mathematics I.....	4
MTH 2620 Integrated Mathematics II.....	4
PSC 1010 American National Government.....	3
SCI 2610 Integrated Natural Science I.....	3
SCI 2620 Integrated Natural Science II.....	3
SPE 1010 Public Speaking.....	3
Total.....	38

**English majors must select another Level II Arts and Letters General Studies course and will take ENG 3461 for this requirement.*

Professional Elementary Education Licensure Sequence

Foundations

Required Courses.....	Semester Hours
EDT 3610 Applications of Educational Technology(1).....	2-3
EDU 3100 Social Foundations and Multicultural Education.....	4
PSY 1800 Developmental Educational Psychology.....	4
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
SED 3600 The Exceptional Learner in the Classroom.....	3

Integrated Methods

Required Courses.....	Semester Hours
ART 2060 Art Lab for the Elementary Teacher.....	1
EDU 3640 Basic Techniques of Instruction, Assessment and Management.....	3
EDU 3650 Elementary Instruction, Assessment and Management Field Experience.....	1
EDU 4100 Integrated Methods of Teaching Language Arts and Social Studies:K-6(2).....	3
EDU 4105 Integrated Language Arts and Social Studies Field Experience: K-6(2).....	1
EDU 4120 Integrated Methods of Teaching Science, Health and Mathematics:K-6(2).....	3
EDU 4125 Integrated Science, Health and Mathematics Field Experience: K-6(2).....	1
EDU 4190 Student Teaching and Seminar: Elementary K-6(3).....	6-12
HPS 2080 Physical Education Lab for the Elementary Teacher.....	1
MUS 2050 Music Lab for the Elementary Teacher.....	1
RDG 4000 Literacy Instruction in Grades K-6.....	3
Total.....	46-47

- (1)Elementary Education licensure students taking EDT 3610 must register for 2 credit hours. Three credit hours should be elected by licensure students who wish to pursue advanced content area or grade-level technology skills.*
- (2)These integrated methods courses must be taken concurrently with the field experience counterpart.*
- (3)Only students who are preparing for endorsements in two areas (e.g., elementary/bilingual; elementary/special education) are allowed to take six credit hours.*

Endorsement in both Early Childhood and Elementary Education

Students may receive endorsement in both early childhood and elementary education provided they complete the elementary education licensure sequence and a minor in early childhood education.

Required Courses.....	Semester Hours
Early Childhood Education Minor.....	23

Consult with the Early Childhood Program for additional information.

Professional Secondary and K-12 Education Licensure

2003-2004 College Catalog

The Secondary Education Program offers professional preparation for teaching and education-related careers in collaboration with the Reading, Educational Technology, and Special Education Programs and various major departments. This program 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
Mathematics
Modern Languages (French, Spanish, German)
Science
Social Studies

The Secondary Education Program 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 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.

General Course Requirements for Students Seeking Licensure in Secondary or K-12 Education

Content area knowledge for students seeking secondary and K-12 licensure is provided by the student's major and by the specific general course requirements listed below. In most cases the courses may be applied towards MSCD's General Studies requirements. However, a student's major program may have some specific General Studies requirements/restrictions that must be met to complete the baccalaureate degree. Students should consult with an advisor in their major about specific General Studies. Students should review the teacher education admission requirements.

ENG 1010 Freshman Composition: The Essay.....	3
ENG 1020 Freshman Composition: Analysis, Research & Documentation.....	3
MTH 1610 Integrated Mathematics I*.....	4
SPE 1010 Public Speaking.....	3

** Students whose major is mathematics, chemistry, environmental science, or economics are exempt from this requirement because they must take other mathematics courses.*

Secondary Professional Education Licensure Sequence

In addition to a major in one of the above areas, students seeking a bachelor's degree should select a minor as required. Students may elect to complete their minor in Secondary Education. By selecting this minor, students can fulfill both minor and pre-student teaching licensure requirements.

Required Courses.....	Semester
Hours	
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools*.....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools*.....	2
EDS 3200 Educational Psychology Applied to Teaching.....	3
EDS 3210 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School**.....	3
EDS 3220 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School**.....	2

2003-2004 College Catalog

EDT 3610 Applications of Educational Technology.....	2-3
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
SED 3600 The Exceptional Learner in the Classroom.....	3
(or physical education majors may take HPS 4620, Adaptive Human Performance and Sports Activities)	
XXX Methods of Teaching the Major.....	3
Subtotal.....	25-26

Students seeking K-12 licensure are not required to take EDS 3210 and EDS 3220. Those seeking Art and Music K-12 endorsements are not required to take EDT 3610. Those seeking Physical Education endorsement take HPS 4620, Adaptive Physical Education, instead of SED 3600.

Teaching Practice for Secondary and K-12

EDS 4290 Student Teaching and Seminar: Secondary 7-12***.....	6-12
(available summer term only with special arrangements)	
Total.....	37-38

**These two courses must be taken concurrently.*

***These two courses must be taken concurrently. Math teacher candidates must take MTL 3630 and MTL 3638 concurrently with EDS 3210 and EDS 3220 during the semester before student teaching.*

****Only students who are preparing for K-12 licenses or for two subject areas (e.g., bilingual or special education) are allowed to take 6 credit hours. K-12 licensure students take EDS 4290-6 and EDU 4190-6.*

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

Required Courses.....	Semester Hours
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools..	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools.....	2
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 Applications of Educational Technology***.....	2-3
SED 3600 The Exceptional Learner in the Classroom.....	3

Semester II

EDS 3210 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School**.....	3
EDS 3220 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School**.....	2
RDG 3280 Teaching Literacy Skill Development in the Content Areas.....	4
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.....	6-12
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**Secondary Education and K-12 licensure students taking EDT 3610 must register for 2 or 3 credit hours. Three*

2003-2004 College Catalog

credit hours should be elected by licensure students who wish to pursue advanced content area or 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.*

Science Licensure Program

The program includes a major in one area of science and required courses in other areas of science. 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

Chemistry

Environmental Science

Required Science Courses

In addition to their major, students must complete the following courses. They may be completed as part of the major or as part of General Studies.

Biology (8 hours required).....Semester Hours

BIO 1080 General Introduction to Biology.....3

BIO 1090 General Introduction to Biology Laboratory.....1

BIO 1180 General Organismic Biology (for nonbiology majors)....4

Chemistry* (10 hours required-one of the two sequences)

CHE 1100 Principles of Chemistry.....4

CHE 1150 Principles of Chemistry Laboratory.....1

CHE 2100 Introduction to Organic and Biological Chemistry.....5

**Biology majors consult with the Biology Department for chemistry requirements for bachelor of arts or bachelor of science degree.*

Students wanting General Studies credit from CHE 1100 must take companion course CHE 1150.

-or-

CHE 1800 General Chemistry I.....4

CHE 1810 General Chemistry II.....4

CHE 1850 General Chemistry Lab.....2

Students wanting General Studies credit from CHE 1800 must take companion course CHE 1850.

Earth Science (7 hours required; 11 or 12 hours recommended to cover all PLACE objectives*)

GEG 1100* Introduction to Physical Geography.....3

GEL 1030 Historical Geology.....4

**It is recommended that GEL 1010-4 (General Geology) and MTR 2400-4 (Introduction to Atmospheric Science) be taken instead of GEG 1100; however this increases total hours by 5 hours.*

Environment Science (3 hours required except for biology majors**)

GEG 1200 Introduction to Environmental Science.....3

***Biology majors will take an ecology course that will cover the needed material*

Physics (10 hours required-one of the two sequences)

PHY 2010 College Physics I.....4

PHY 2020 College Physics II4

PHY 2030 College Physics Laboratory I1

PHY 2040 College Physics Laboratory II1

-or-

PHY 2311 General Physics I.....4

2003-2004 College Catalog

PHY 2321 General Physics I Laboratory.....	1
PHY 2331 General Physics II.....	4
PHY 2341 General Physics II Laboratory.....	1

Mathematics

Biology must take both:

MTH 1400 Pre-Calculus Mathematics.....	4
MTH 1610 Integrated Mathematics I.....	4

Chemistry majors must take:

MTH 1410 Calculus I.....	4
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Environmental science majors must take both:

MTH 1210 Introduction to Statistics.....	4
MTH 1400 Pre-Calculus Mathematics.....	4

Science Teaching Methods

SCI 3950 Teaching Science in Middle and Secondary Schools.....	3
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Total hours.....	45-49
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Social Studies Licensure Program

The program includes a major in a social science and required courses in other areas of social science. Secondary Teacher Education specifies the course work required for licensure and coordinates with the major department to assure all standards are met. Licensure is recommended upon successful completion of all major requirements, social science courses, and the professional sequence.

Major

Students must complete an academic major at MSCD in one of the following areas:

Behavioral Science*

Chicano Studies*

Economics

History

Political Science

**Students who major in Behavioral Science or Chicano Studies must take 27 hours of history including HIS 4010 as part of General Studies, their major, and social studies licensure.*

In addition to their major, students must complete the following courses. They may be completed as part of the major or as part of General Studies.

History (12 hours).....Semester Hours

HIS 1010 Western Civilization to 1715

-or-

HIS 1030 World History to 1500.....3

HIS 1040 World History since 1500.....3

HIS 1210 American History to 1865.....3

HIS 1220 American History since 1865.....3

Students whose major is Behavioral Science or Chicano Studies must take 12 more hours of history selected in consultation with an advisor in their major.

Anthropology (3 hours)

ANT 1310 Introduction to Cultural Anthropology.....3

Economics (6 hours)

ECO 2010 Principles of Economics-Macro.....3

ECO 2020 Principles of Economics-Micro

2003-2004 College Catalog

-or-

ECO 3200 Economic History of the U.S.....3

Geography (6 hours)

GEG 1920 Concepts and Connections in Geography.....3

GEG 3000 Historical Geography of the U.S.....3

Political Science (9 hours)

PSC 1010 American National Government.....3

PSC 1020 Political Systems and Ideas.....3

PSC 3030 Introduction to International Relations**..3

*** Chicano Studies majors will take Mexico and Chicano Politics that will cover the needed material.*

Social Studies Teaching Methods (3 hours)

HIS 4010 Methods of Teaching Social Science: Secondary School..3

Total hours.....39

MINORS

The following minors are offered by the Teacher Education Department: bilingual/bicultural education, early childhood education, elementary education, parent education, reading, secondary education, and special education. 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.

To complete a bachelor's degree and licensure in eight semesters, students who wish to be elementary or early childhood education teachers should take the minor in that program. The minor in secondary education is an option that assists prospective secondary school teachers in completing both bachelor's degree and licensure in eight semesters.

The minor is a baccalaureate degree requirement, not a requirement of the teacher education licensure program. Licensure-only students, for example, do not need a minor to become licensed to teach.

BILINGUAL/BICULTURAL EDUCATION MINOR

The minor in bilingual/bicultural education is an interdisciplinary minor sponsored by the Chicana/o Studies, Modern Languages, and Teacher Education Departments. The principal objective of the bilingual/bicultural minor is to prepare future teachers to meet the needs of all students, particularly linguistically different students. Among other goals, this minor prepares teachers to conduct all phases of classroom instruction in a bilingual and bicultural setting and to promote the students' academic success and development of English language literacy. In the developmental sequence, the minor provides the potential teacher with a background of Hispanic heritage and an understanding of present-day Hispanic/Chicano culture. 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 bilingual/bicultural minor provides a program of study with two options to serve different students' needs.

Option 1: Students can take the bilingual/bicultural minor without seeking bilingual education endorsement. This course of study provides an opportunity for these students to become aware of the culture and unique needs of the limited English proficient students with whom they will work. Students in this course of study are required to possess satisfactory Spanish reading and writing literacy as assessed by the *BYU Computerized Adaptive Proficiency Exam*. Students' Spanish listening and speaking skills must also be assessed as satisfactory by a committee of Spanish speaking faculty in the Modern Languages and Chicana and Chicano Studies Departments. Students are also required to pass all levels of Spanish courses indicated in the minor. This program rests on the belief that a teacher with the required knowledge, attitudes, and skills taught in the bilingual/bicultural minor can provide for a student's success even without full proficiency in the Spanish language. This minor is available for students in any

of the licensure programs. Students in the minor will complete a 90-hour bilingual field experience (EDU 4520) rather than the student teaching assignment in a bilingual classroom setting. They will not be eligible for recommendation for an added teaching endorsement in bilingual education. Those wishing an endorsement in bilingual education from the Colorado Department of Education should follow option 2.

Option 2: This option is for students seeking an added endorsement to their approved teacher licensure program (e.g., elementary education). Students who successfully complete Option 2 will be recommended for an additional endorsement in bilingual education granted by the Colorado Department of Education. Students will complete the bilingual/bicultural minor program of study. They must demonstrate a **high** level of proficiency in Spanish reading and writing prior to completing the minor as assessed by scores on the *BYU Computerized Adaptive Proficiency Exam*. They must also demonstrate a high level of proficiency in Spanish speaking and listening as assessed by a committee of Spanish speaking faculty in the Modern Languages and Chicana and Chicano Studies Departments. Students in Option 2 will complete a full-time eight-week student teaching assignment (EDU 4590) in a bilingual classroom. This assignment provides an additional opportunity for students to demonstrate, among other skills and knowledge, the ability to provide instruction in both English and Spanish. Students' high levels of Spanish language proficiency (reading, writing, speaking, listening) prepares them to understand and further develop the native tongue of bilingual children while offering a second language to many other children.

Required Courses and Recommended Sequence*	Semester Hours
CHS 1020 History of the Chicana/o in the Southwest:1810-Present.....	3
CHS 3300 Education of Chicano Children.....	3
EDU 3510 Perspectives in Bilingual/Bicultural Education.....	4
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
EDU 4510 Development of Methods and Materials for Second Language/ Bilingual/Bicultural Learning.....	4
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
EDU 4520 Field Experience in Bilingual/Bicultural Education**.....	4
-or-	
EDU 4590 Bilingual Student Teaching and Seminar***.....	6
<i>Total.....</i>	<i>30-32</i>
<i>*Note: requirements are pending approval.</i>	
<i>*Required for students seeking minor without endorsement.</i>	
<i>**Required for bilingual minor with endorsement.</i>	

Language Proficiency Requirements

A satisfactory level of proficiency in Spanish reading, writing, listening and speaking is required of all Option 1 students. A high level of proficiency in Spanish reading, writing, listening and speaking is required of all Option 2 students. Levels of proficiency are determined by scores on the *BYU Computerized Adaptive Proficiency Exam* and by an oral exam given a committee composed of Spanish-speaking members of the Modern Languages and Chicana and Chicano Studies Departments. Students who fail to achieve the required cut score on the proficiency examination are required to take sufficient Spanish classes to enable them to pass at the required level. The following courses are designed to help students meet required proficiency levels before the completion of the bilingual/ bicultural minor:

SPA 1010 Elementary Spanish I.....	5
SPA 1020 Elementary Spanish II.....	5

2003-2004 College Catalog

SPA 2110 Spanish Reading and Conversation I.....	3
SPA 2120 Spanish Reading and Conversation II.....	3

EARLY CHILDHOOD EDUCATION MINOR

Bachelor's degree seeking early childhood licensure students must minor in Early Childhood Education to complete their degree and licensure program within four years.

The minor in Early Childhood Education also serves three other groups of students. First, it meets the needs of students who are initially endorsed by the Colorado Department of Education in elementary education or special education and want a second endorsement in early childhood by the Colorado Department of Education. These students should be most interested in grade pre-school-3. Second, it meets the needs of students who wish to work with young children in a setting that does not require teacher licensure, especially in roles as parents, day care group leaders, and day care directors. Finally, it serves students who intend to pursue graduate studies in special education, psychology, social work or other related fields with a focus on working with young children. Students seeking licensure need to complete additional requirements including gaining formal admission to the Teacher Education Program and student teaching. The minor does not include all teacher licensure courses.

Required Courses.....	Semester
Hours	
ECE 2340 Foundations of Early Childhood Education*.....	3
ECE 2350 Foundations of Early Childhood Education: Field Experience*.....	1
ECE 3150 Developmentally Appropriate Practice I: Planning and Management with Literacy Emphasis**.....	3
ECE 3160 Developmentally Appropriate Practice I: Field Experience**.....	1
ECE 3330 Social Studies and Expressive Arts for the Young Child.....	3
ECE 3350 Documentation, Assessment, and Decision-Making for Early Childhood....	3
ECE 4330 Science, Health, and Mathematics for the Young Child.....	3
RDG 3110 Foundations of Literacy Instruction in Grades P-6.....	3
RDG 3120 Developing Print Literacy: Preschool-Grade 3**.....	3
Subtotal.....	
.23	

**These two courses must be taken concurrently.*

***These three courses must be taken concurrently.*

ELEMENTARY EDUCATION MINOR

The Elementary Education Minor is designed so students seeking a baccalaureate degree can complete their teacher preparation program in four years. It also serves individuals who are interested in working with elementary aged children (ages 5-12) outside the K-6 classroom (e.g. recreation fields, summer camps, travel programs, after school enrichment programs, day care). The minor provides the only available option for degree seeking students to complete the elementary licensure program and their B.A. in four years. The minor includes 45 hours of field experience. Students seeking licensure need to complete additional requirements including gaining formal admission to the Teacher Education Program and student teaching.

Required Courses.....	Semester
Hours	

2003-2004 College Catalog

ART 2060 Art Lab for the Elementary Teacher*.....	1
EDT 3610 Applications of Educational Technology.....	2-3
EDU 3100 Social Foundations and Multicultural Education.....	4
EDU 3640 Basic Techniques of Instruction, Assessment and Management*,**.....	3
EDU 3650 Elementary Instruction, Assessment and Management Field Experience*,**.....	..1
HPS 2080 Physical Education Lab for the Elementary Teacher*.....	1
MUS 2050 Music Lab for the Elementary Teacher*.....	1
RDG 3110 Foundations of Literacy Instruction in Grades P-6*.....	3
SED 3600 The Exceptional Learner in the Classroom.....	3
Total.....	19
	-20
*PSY 1800 and ART/MUS 2040 are required prerequisites for several courses in the minor. Students should check the prerequisites before enrolling in any course.	
**These two classes must be taken concurrently.	

SECONDARY EDUCATION MINOR

The Secondary Education Minor will be of interest to students who wish to teach in secondary schools, grades 7-12, or work with secondary-aged children outside the classroom (e.g., recreation programs, travel, summer camps, enrichment programs), or work with learners of all ages in corporate or other training/education programs. It provides necessary knowledge, skills and applications in real school settings to develop students' understanding of the principles of teaching and learning in middle and high schools. The minor provides an option that assists degree-seeking students pursuing licensure to complete their baccalaureate and teacher licensure requirements in four years. To emphasize the application of knowledge in the field as required in new performance standards for teachers, the minor features 160 field based hours. Students seeking licensure need to complete additional requirements including gaining formal admission to the Teacher Education Program and student teaching. The minor does not include all teacher licensure courses.

Required Courses.....	Semester
Hours	
EDS 3110 Processes of Education in Multicultural Urban Secondary Schools*.....	3
EDS 3120 Field Experiences in Multicultural Urban Secondary Schools*.....	2
EDS 3200 Educational Psychology Applied To Teaching.....	3
EDS 3210 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School**.....	3
EDS 3220 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School**.....	2
EDT 3610 Applications of Educational Technology.....	2-3
RDG 3280 Teaching Literacy Skill Development in the Content	

2003-2004 College Catalog

Areas.....	4
SED 3600 The Exceptional Learner in the Classroom.....	3
XXX Content Methods in Major.....	3
Total.....	25
-26	

**These two courses must be taken concurrently.*

*** These two courses must be taken concurrently. Mathematics teacher candidates enroll in EDS 3222-2 rather than EDS 3220-2; they should check with their mathematics and education faculty about which courses need to be taken concurrently.*

Reading Minor, see page 249 of this Catalog.

Special Education Minor, see page 250 of this Catalog.

Technical Communications Department

The Technical Communications Department offers a BS degree in Technical Communications with four concentrations and a technical communications minor, and well as four certificate programs. The four concentrations are technical writing and editing, corporate communications, technical media, and multimedia production. Each concentration offers training in one or more technical 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 and lay publications produced by industry and government. The corporate communications concentration is designed for the person who desires to manage a technical publications unit. It provides students preparation in managing the flow of information within a company, government agency, or between industries and agencies, as well as setting standards for publications to reflect the culture of the organization. The technical media concentration meets two needs of industry and government: people prepared to design and implement internal training programs, and people seeking 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 four certificate programs are international technical writing, multimedia production, corporate video production, and technical writing and editing. These programs are designed to enhance the professional training and experience an individual already possesses in order to expand employment opportunities and advancement.

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, the minor, or a certificate program must confer with a department advisor because all degree and certificate plans are tailored to the career goals of the individual student.

Computerized document processing ability is required of all students majoring, minoring, or enrolled in a certificate program in the department. Students can meet this requirement by:

- providing documentary evidence at the time they see their department advisor of previous satisfactory completion of an academic or industrial training course in computer literacy and document processing.

2003-2004 College Catalog

- enrolling in an approved MSCD course in CMS/ CSS 1010 in the semester following the declaration of their major, minor, or enrolling in a certificate program. The department advisor will work with the student to select the most appropriate course for the student's academic needs.

All students completing the 42 credit hour major in the program must participate in assessment and complete a minor in a discipline other than technical communications. See the department for details. Students enrolled in an extended major in the department are not required to complete a minor.

Technical Communications Major for Bachelor of Science

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 2610 Introduction to Technical Writing.....	3
COM 3530 Corporate Cultures.....	3
COM 3620 Technical Editing.....	3
COM 3630 Designing Technical Publications.....	3
<i>Subtotal</i>	12

Senior Experience Requirement**

COM 4790 Senior Seminar in Technical Communications.....	3
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Electives**

Twenty-one hours of electives from the following and/or courses approved by the student's departmental advisor that would specifically benefit the student's career goals:

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 3460 Virtual Reality in Corporate Communications.....	3
COM 3510 Corporate Communications.....	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

2003-2004 College Catalog

COM 3670 Writing for the Environmental Industry.....	3
COM 4380 Law of Cyberspace-Communications.....	3
COM 4630 Costing and Planning Technical Publications.....	3
COM 4760 Advanced Internship in Technical Communications*.....	1-12
<i>Courses Outside the Department</i>	
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>	21
<i>Total for Technical Writing and Editing Concentration</i>	42
<i>*Students seeking an internship must be approved by the Department.</i>	
<i>**Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.</i>	

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 reflecting the culture that exists within a corporation. It focuses on the 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 Core6

Required Concentration Courses**Semester
Hours

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
<i>Subtotal</i>	15

Senior Experience Requirement**

COM 4790 Senior Seminar in Technical Communications*.....	3
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Electives**

Eighteen hours of electives from the following and/or courses approved by the student's departmental advisor that would specifically benefit the student's career goals:

Departmental Courses

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 3460 Virtual Reality in Corporate Communications.....	3
COM 3550 Administration of Corporate Publications.....	3
COM 3560 Variable Topics in Corporate Communications.....	3
COM 3660 Variable Topics in Industrial and Technical Communications.....	3
COM 3670 Writing for the Environmental Industry.....	3
COM 3680 Internet Document Design for Technical Communicators.....	3
COM 4380 Law of Cyberspace-Communications.....	3
COM 4760 Advanced Internship in Technical Communications*.....	1-12
<i>Courses Outside the Department</i>	
HMT 4730 Principles of Negotiation.....	3
MGT 3550 Manufacturing and Service Management.....	3
MGT 4610 Labor/Employee Relations.....	3

2003-2004 College Catalog

SOC 3160 Industry, Work and Occupations.....	3
Subtotal.....	18
Total for Corporate Communications Concentration.....	42

**Students seeking an internship must be approved by the Department.*

***Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

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 course work in 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 3470 Writing for Multimedia.....	3
COM 4450 Advanced Multimedia Production.....	3
CSS 1247 Introduction to Programming: Visual Basic.....	4
CSS 2267 The Java Programming Language.....	4
Subtotal	20

Senior Experience Requirement**

COM 4410 Budgeting and Planning for Audio-Visual Productions	3
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Electives**

The student must choose 13 hours of electives from the following courses or substitute an elective course that has been approved by the student's advisor.

Departmental Courses

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 2470 Basic DVD Authoring.....	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 3400 Nonlinear Video Editing.....	3
COM 3420 Intermediate Corporate Videotape Production.....	3
COM 3440 Corporate Scriptwriting for Film and Television.....	3
COM 3460 Virtual Reality in Corporate Communications.....	3
COM 3530 Corporate Cultures.....	3
COM 3680 Internet Document Design for Technical Communicators.....	3
COM 4380 Law of Cyberspace-Communications.....	3
COM 4401 Advanced Nonlinear Video Editing.....	3
COM 4420 Advanced Videotape Production.....	3
COM 4430 Directing and Lighting for Nonbroadcast Video.....	3
COM 4440 Advanced Corporate Screenwriting.....	3
COM 4760 Advanced Internship in Technical Communications*.....	1-12
COM 4888 Workshop in Digital Video Editing.....	3

Courses Outside the Department

2003-2004 College Catalog

CMS 2110 Business Problem Solving: A Structured Programming Approach.....	3
CMS 3030 Business Web Page Development.....	3
CMS 3050 Fundamentals of Systems Analysis and Design.....	3
CMS 3060 Database Management Systems.....	3
CMS 3230 Telecommunication Systems.....	3
CSS 3607 Advanced Web Programming: Java and Perl.....	4
<i>Subtotal.....</i>	<i>13</i>
<i>Total for Multimedia Production Concentration.....</i>	<i>42</i>

**Student seeking an internship must be approved by the Department.*

***Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

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
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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>	<i>12</i>

Plus 12 credits from the following:**

COM 2400 Basic Video Editing	3
COM 2460 Presentation Graphics	3
COM 2480 Corporate Animation.....	3
COM 3350 International Technical Media	3
COM 3400 Nonlinear Video Editing	3
COM 3420 Intermediate Corporate Videotape Production.....	3
COM 3450 Intermediate Multimedia Production	3
COM 3470 Writing for Multimedia	3
COM 4401 Advanced Nonlinear Video Editing.....	3
COM 4420 Advanced Videotape Production	3
COM 4430 Directing and Lighting for Nonbroadcast Video	3
COM 4440 Advanced Corporate Scriptwriting	3
COM 4450 Advanced Multimedia Production	3
COM 4760 Advanced Internship in Technical Communications*	1-6
COM 4888 Workshop	3
<i>Subtotal</i>	<i>12</i>

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 2470 Basic DVD Authoring	3
COM 2610 Introduction to Technical Writing	3
COM 3310 International Technical Communications	3
COM 3330 Technical Writing for Translation	3
COM 3510 Corporate Communications	3
COM 3520 Communication of Power and Authority	3

2003-2004 College Catalog

COM 3530 Corporate Cultures	3
COM 3560 Variable Topics in Corporate Communications	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 and Technical Communications...	3
COM 3680 Internet Document Design for Technical Communicators.....	3
COM 4380 Law of Cyberspace-Communications.....	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 Audiovisual Productions

-or-

COM 4790 Senior Seminar in Technical Communications.....

Subtotal

Total

**Students seeking an internship must be approved by the Department.*

***Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

Extended Major Options

An extended major within the Department is possible when a student's career goals require technology proficiency. To complete the extended major the student must fulfill all requirements specified in any of the Technical Communications concentration areas. Using the extended major format, and in consultation with an advisor, students in the technical media and multimedia concentrations would take technology-related coursework, that either currently exists or may be developed at a future date, that would allow the student to integrate current technology into their area of study. The student must take a minimum of nine credit hours of upper-division coursework. Any course that has been taken as a concentration area requirement cannot be used to satisfy requirements in the extended major.

Choose 24 hours from the following: *

Departmental Courses

COM 3470 Writing for Multimedia.....	3
COM 3640 Writing Computer-User Software Documentation.....	3
COM 3650 Writing Hardware Documentation.....	3
COM 3680 Internet Document Design for Technical Communicators.....	3
COM 4380 Law of Cyberspace-Communications.....	3

Courses Outside the Department

CMS 2110 Business Problem Solving: A Structured Programming Approach...	3
CMS 3030 Business Web Page Development.....	3
CMS 3230 Telecommunication Systems.....	3
CMS 3280 LAN and WAN Systems for Business.....	3
CMS 4030 Web Site Administration.....	3
CSS 1247 Introduction to Programming: Visual Basic.....	4
CSS 2267 The Java Programming Language.....	4
CSS 3607 Advanced Web Programming: Java and Perl.....	4
EDT 3610 Applications of Educational Technology.....	2-3
EET 2310 Digital Circuits I	4
IND 3410 Computer Aided Drafting for Industry.....	3
IND 3530 Digital Photography.....	3
<i>Concentration total</i>	42

309 | © Metropolitan State College of Denver

2003-2004 College Catalog

<i>Extended Major total</i>	24
<i>Total</i>	66

**Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

Under specific circumstances, a student completing a community college degree may enroll for an extended major within the department 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 this 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. Students enrolled in the extended major are not required to complete a minor.

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 2400 Basic Video Editing	3
COM 2420 Basic Corporate Videotape Production	3
COM 2450 Basic Multimedia Production	3
COM 2460 Presentation Graphics	3
COM 2470 Basic DVD Authoring	3
COM 2480 Corporate Animation	3
COM 3310 International Technical Communications	3
COM 3330 Technical Writing for Translation	3
COM 3350 International Technical Media	3
COM 3400 Nonlinear Video Editing	3
COM 3420 Intermediate Corporate Videotape Production	3
COM 3440 Corporate Scriptwriting for Film and Television	3
COM 3450 Intermediate Multimedia Production	3
COM 3460 Virtual Reality in Corporate Communications	3
COM 3470 Writing for Multimedia	3
COM 3510 Corporate Communications.....	3
COM 3520 Communication of Power and Authority	3
COM 3550 Administration of Corporate Publications	3

2003-2004 College Catalog

COM 3530 Corporate Cultures	3
COM 3560 Variable Topics in Corporate Communications	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 and Technical Communications.....	3
COM 3670 Writing for the Environmental Industry	3
COM 3680 Internet Document Design for Technical Communicators	3
COM 3780 Communications' Law	3
COM 4380 Law of Cyberspace-Communications	3
COM 4401 Advanced Nonlinear Video Editing	3
COM 4410 Budgeting and Planning for Audiovisual Productions	3
COM 4420 Advanced Videotape Production	3
COM 4430 Directing and Lighting for Nonbroadcast Video	3
COM 4440 Advanced Corporate Scriptwriting	3
COM 4450 Advanced Multimedia 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
Subtotal	15
Total	24

**Students seeking an internship must be approved by the Department.*

***Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

Certificate Programs Available

Students must complete each course in the certificate program with a grade of “C” or better. The courses cannot be taken pass/fail.

INTERNATIONAL TECHNICAL WRITING

Students wishing to enroll in this certificate program must have a degree in technical writing and editing or industrial experience as a technical writer or editor.

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 Law of Cyberspace-Communications.....	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

2003-2004 College Catalog

COM 2430 Introduction to Technical Media	3
COM 3400 Nonlinear Video Editing	3
COM 3420 Intermediate Corporate Videotape Production	3
COM 3440 Corporate Scriptwriting for Film and Television	3

For prerequisites, call Mr. Robert Amend, 303-556-2674.

TECHNICAL WRITING AND EDITING

COM 2610 Introduction to Technical Writing	3
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. Kathryn O-Donnell, 303-556-4756.

Course 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.

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 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.

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.

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*.
- 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.

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)

Prerequisites: 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: AAS or SOC.

AAS 2100-3

(CHS 2100, ICS 2100, NAS 2100, WMS 2100) Women of Color (3 + 0)

Prerequisites: 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 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 3041-3

(ART 3041) African Art: The Niger to the Atlas Mountains (3+0)

Prerequisite(s): ENG 1010 and ENG 1020

Some of Africa's most impressive art has been created in the regions of the continent which are bordered by the Niger River in the south and the shores of the Mediterranean on the north. This course examines the history of art in western and northern Africa, and evaluates the ways it has been studied and displayed. Credit will be granted for only one prefix: AAS or ART.

AAS 3042-3

(ART 3042) African Art: The Nile to the Cape (3+0)

Prerequisites: ENG 1010 and ENG 1020

The history of the art of southern, central, eastern and northeastern Africa is examined in this course. Historical relationships between regions and between continents will be traced, particularly in the art of the Nile Valley and the Swahili Coast. Credit will be granted for only one prefix: AAS or ART.

AAS 3043-3

(ART 3043) 5000 Years of Egyptian Art (3+0)

Prerequisites: ENG 1010 and ENG 1020

The Nile Valley has been the source of some of world's most intriguing art works. From the beginnings of civilization in Kemet (the Black Land), through colonial periods (Egypt was part of the Greek, Roman, and Byzantine world), and continuing into the Islamic period, this course will examine art laden with religious values and sensual appeal. Credit will be granted for only one prefix: AAS or ART.

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)

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

(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

(CHS 3700/PSY 3700/WMS 3700) Psychology of Group Prejudice (3 + 0)

Prerequisites: PSY 1001 or AAS 1010 or CHS 1000 or WMS 1001

This course covers psychological theory and research that examines causes, consequences, and ways of reducing prejudice and discrimination. Various expressions of prejudice and discrimination are addressed, most notably racism and sexism. Credit will be granted for only one prefix. (Multicultural)

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 4490-3 Contemporary Issues in African American Studies (3 + 0)

Prerequisites: junior or senior standing and AAS 1010

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, 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)

Prerequisites: 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

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 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)

Prerequisites: 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

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)

Prerequisite: 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 (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 Aerospace Development (3 + 0)

This course examines how the people and defining events of the past influence aviation and aerospace career opportunities. From the early myths and legends through present and anticipated aerospace developments, the effects that advances in propulsion systems, structural materials, navigation techniques, high altitude flights, weather considerations, have had upon the progress of manned flight in and beyond the atmosphere are considered. We vicariously re-live some of the extraordinary experiences of early aviators, both in peace and in war. The course includes examination of aviation artifacts of the World Wars I and II eras. There are field exercises to the Air and Space Museum, launch vehicle facilities, and other aviation activities.

AES 2150-4 Avionics for Aviators (4 + 0)

Prerequisites: AES 1100, MTH 1100, PHY 1250 or instructor permission

This course is an Avionics Systems/Maintenance Management oriented toward the pilot. The instruction will enable the student to become familiar with, and be comfortable in the use of, the Avionics suite, thus reducing cockpit confusion during flight. The course provides a working understanding of light plane aircraft electrical systems, and systems including VHF COM, ADF, VOR/LOC, ILS/GLD, SLP/MKR BCN, DME, TRANSPONDER and MODE C, FDMS, RADAR and SFERICS, GPS, ANTENNAS, ELT, PCL, MFDs, EICAS, and HUD. The student will also learn how to implement avionics failure-prevention procedures while pilot-in-command and know and appreciate the limitations of electronic nav aids due to equipment and propagation anomalies. Emphasis is on safety and precautions; the goal is systems-smart, competent pilots.

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.

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)

Prerequisite: 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

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: AES 1400, at least 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)

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: PHY 1250

This course studies the basic principles of aerodynamics, including airfoil shapes and

aerodynamic forces, airplane performance, stability and control, strength limitations, and the application of these to specific flight situations. Included in this course are flight performance with air flow in the 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 (2 + 2)

Prerequisite: FAA commercial/instrument certificate 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.

AES 3850-3 Human Factors and Physiology of Flight (3 + 0)

Prerequisite: junior or senior 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 or senior 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 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)

Prerequisite: junior or senior 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 or senior 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

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, and flight management systems are discussed, followed by a computer flight management practicum.

AES 4500-1 Flight Multi-Engine (1 + 1)

Prerequisite: 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)

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

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.

AES 4860-3 Aviation Safety (3 + 0)

Prerequisites: senior standing and AES 3000, AES 3460, AES 3530, and AES 3850

This course presents the principles of aviation accident prevention and aviation operations safety, including specific practices, procedures, methods, and organization. It covers the history of aviation mishap and accident experience with legal ramifications, along with those methods used that have proven useful in preventing aircraft mishaps. Human factors, contemporary investigation organization and sources of assistance, analysis of aerodynamics applications, fatigue, and stress are also presented. Inferential reasoning is used as a method of developing critical thinking.

AES 4870-3 Aviation Systems Safety Program Management (3 + 0)

Prerequisite: senior standing and AES 3220 and AES 3850 is recommended

This course studies requirements to direct comprehensive safety programs of aviation organizations at aviation facilities. Included are the philosophy of Systems 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)

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 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, social organization, language, ecological adaptation, economics, and religion. The applied aspects of anthropology are also investigated. (General Studies—Level II, Social Sciences) (Guaranteed Transfer—SS3)

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)

Prerequisite: 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)

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 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

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 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

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 documents. Oriented to non-art majors. (General Studies—Level II, Arts and Letters)

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 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 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.

ART 1300-4

(IND 1010) 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. Credit will be granted for only one prefix: ART or IND.

ART 2001-3 World Art I: Art before 1200 (3 + 0)

Prerequisite: ENG 1010 or permission of instructor

Pre or Corequisite: ENG 1020 or permission of instructor

This survey of major art works from Europe, Asia, Africa and the Americas includes art from the Paleolithic period through the 12th century A.D. As one of the foundation courses for both the BA and BFA degrees, World Art I introduces students to mankind's rich artistic heritage, and initiates them into the study of art history.

ART 2002-3 World Art II: Art since 1200 (3 + 0)

Prerequisites: ART 2001, ENG 1010 and ENG 1020; or permission of instructor

This survey of major art works from Europe, Asia, Africa and the Americas focuses upon art of the last eight hundred years. As one of the foundation courses for both the BA and BFA degrees, World Art II evaluates the art which has shaped and informed our world. It introduces students to varied forms of art historical analysis, and to both modern and post-modern theories of art.

ART 2040-3

(MUS 2040) An Integrated Approach to Art and Music (3 + 0)

Prerequisite: 24 undergraduate credit hours, including ENG 1010 and ENG 1020, or permission of instructor

This course enables students to develop awareness and knowledge of the major periods, styles, and landmark works in worldwide visual arts and music. Philosophical and aesthetic foundations of art, music, and the creative process will be explored to enhance this study. Basic elements of music and art will be identified and applied to the study of masterworks. The concepts presented in this integrated approach will be applied to develop artistic sensibility. Credit will be granted for only one prefix: ART or MUS. (General Studies—Level II, Arts and Letters)

ART 2060-1 Art Lab for the Elementary Teacher (0 + 3)

Prerequisites: ART 2040 or MUS 2040, 24 undergraduate credit hours including ENG 1010 and ENG 1020 or permission of instructor

This laboratory course enables students to apply the content and methods of art education, including the Colorado Model Content Standards for Visual Arts, to elementary curriculum planning, implementation, and assessment. Concepts from ART/MUS 2040, An Integrated Approach to Art and Music, will be developed for the purpose of integrating art into the elementary curriculum. Students will apply creative and critical thinking to solve artistic problems in the art studio. Appropriate methods for integrating art into the elementary curriculum, including literacy and mathematics, will be explored.

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 2150-3 Beginning Painting (0 + 6)

Prerequisite: art core

This course will explore the materials and techniques of painting, including composition and method.

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 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 2400-3 Typography I (0 + 6)

Prerequisites: ART 1180, ART 1210, ART 2001

Pre or Corequisite: ART 2002

An introduction to Communication Design: focuses on typography as communicative element and graphic, compositional element. Includes exploration of letterform anatomy, letterform analysis, measuring systems, typographic identification, and practical issues of setting and using type effectively.

ART 2600-3 Beginning Ceramics (0 + 6)

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 objects; introducing the student to the jeweler's workshop, basic fabricating techniques, simple stone setting, and lost-wax casting.

ART 2850-3

(ENG 2850, SPE 2850) Introduction to Cinema Studies (2 + 2)

Prerequisite: completion of Level I General Studies requirements or permission of instructor

This course will introduce the study of motion pictures traditionally projected from film, that is, of cinema. Along with historical and theoretical concepts, students will learn a vocabulary of analysis that will enable them to articulate critical responses to cinema. During the lab hours students will view narrative films that illustrate various concepts being studied. Students will write analytical critiques of particular films. Credit will be granted for this course with only one prefix, that is, once only as English, Speech or Art. (General Studies–Level II, Arts and Letters)

ART 3000-3 Art Nouveau (3 + 0)

Prerequisite: ART 2010 (being changed, see department)

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 3011-3 Art of the 20th and 21st Centuries (3 + 0)

Prerequisite: ART 2002

This course is a study of Modern Art that traces the development of art from 1900 to the present by showing how each style rejected or incorporated ideas from earlier styles. Emphasis is placed on major works of the 20th century which have inspired and affected contemporary artists.

ART 3012-3 A Retrospective View of Modern Art (3 + 0)

Prerequisite: ART 2002 or permission of instructor

This course investigates the canon of modern art from a contemporary perspective. Evaluating art historical models which have been applied to the art of the twentieth century, this course will familiarize the student with both modern and post-modern approaches to art and art history.

ART 3025-3

(CHS 3025) Contemporary Chicano Art (3 + 0)

Prerequisites: ENG 1010 and ENG 1020

This course is a survey of contemporary Chicano art. The historical, religious, social and political content of the artworks will be studied. Students will examine recurrent themes, icons, imagery and forms within the historical timeline. (Art elective; does not apply to upper division art history requirements.) Credit will be granted for only one prefix: ART or CHS.

ART 3030-3 History of Art Between World Wars (3 + 0)

Prerequisite: ART 2010 (being changed, see department)

An in-depth study of art, architecture, and design in the transitional period between World War I and World War II.

ART 3041-3

(AAS 3041) African Art: The Niger to the Atlas Mountains (3 + 0)

Prerequisites: ENG 1010 and ENG 1020

Some of Africa's most impressive art has been created in the regions of the continent which are bordered by the Niger River in the south and the shores of the Mediterranean on the north. This course examines the history of art in western and northern Africa, and evaluates the ways it has been studied and displayed. Credit will be granted for only one prefix: ART or AAS.

ART 3042-3

(AAS 3042) African Art: The Nile to the Cape (3 + 0)

Prerequisites: ENG 1010 and ENG 1020

The history of the art of southern, central, eastern and northeastern Africa is examined in this course. Historical relationships between regions and between continents will be traced, particularly in the art of the Nile Valley and the Swahili Coast. Credit will be granted for only one prefix: ART or AAS.

ART 3043-3

(AAS 3043) 5000 Years of Egyptian Art (3 + 0)

Prerequisites: ENG 1010 and ENG 1020

The Nile Valley has been the source of some of world's most intriguing art works. From the beginnings of civilization in Kemet (the Black Land), through colonial periods (Egypt was part of the Greek, Roman, and Byzantine world), and continuing into the Islamic period, this course will examine art laden with religious values and sensual appeal. Credit will be granted for only one prefix: ART or AAS.

ART 3050-3 The Medieval Artist: Variable Topics (3 + 0)

Prerequisites: ART 2001 or ART 2002 or permission of instructor

This course will study a particular artist or group of artists and explore different techniques, practices, media and approaches to problems of style and iconography in the historical context of the Middle Ages. It will focus on artists such as Gislebertus, Nicholas of Verdun, Villard de Honnecourt, Jean Pucelle, Giotto, Duccio, or others and include the arts of sculpture, metalwork, manuscript illumination, stained glass, fresco, or panel painting. May be repeated for credit under different topics.

ART 3060-3 The Renaissance Artist: Variable Topics (3 + 0)

Prerequisites: ART 2001 or ART 2002 or permission of instructor

A study of a particular artist or artists and their works during the Renaissance and an exploration of studio practice, technique, and various media in light of stylistic development, patronage, iconography, and cultural context. The course will focus on artists such as Van Eyck, Bosch, Bruegel, Leonardo, Michelangelo, Durer or others, and include the arts of drawing, panel painting, fresco, sculpture or printmaking. May be repeated for credit under different topics.

ART 3070-3 History of Photography (3 + 0)

Prerequisite: ART 2020 (being changed, see department)

Study of the development of the photographic process and the history of the photographic image from the earliest experiments through contemporary photographic concerns.

ART 3074-3 Contemporary Print History (3 + 0)

Prerequisites: ART 2002 and ART 1210 or permission of instructor

This course examines the general history of printmaking and the development of printmaking processes with an emphasis on in depth study, research and critique of contemporary American printmaking and print artists.

ART 3077-3 Understanding Visual Language (3 + 0)

Prerequisite: ART 2002

This seminar course teaches students to approach artwork critically in order to construct meaning from visual images. Students will use models of critical thinking to analyze and critique visual texts, including signage, images in mass media, websites and other works of art. They will also learn to apply the class content to their own artwork.

ART 3078-3 History of Communication Design (2 + 2)

Prerequisite: ART 2002

This course presents a comprehensive study of the worldwide developments of visual communication throughout history beginning with the earliest of communication marks and extending to contemporary design concerns. Learned content and design concepts will be applied to develop informed design sensibilities.

ART 3080-3 The Baroque Artist: Variable Topics (3 + 0)

Prerequisite: ART 2001 or ART 2002 or permission of instructor

A study of a particular artist or artists and their works during the seventeenth and eighteenth centuries to include the application of new graphic techniques, dramatic composition, and the development of large programs of painting, sculpture, and architecture to meet the demands of patrons. The course will focus on artists such as Caravaggio, Bernini, Rubens, Rembrandt or others in their historical, stylistic, and cultural context. May be repeated for credit under different topics.

ART 3090-3 Art and Cultural Heritage (3 + 0)

Prerequisites: satisfaction of Level I General Studies course requirements and junior or senior 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 3100-3 Intermediate Drawing (0 + 6)

Prerequisite: 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)

Prerequisite: 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

This course will continue the development of methods of painting through exploration of materials, techniques, and pictorial compositional assignments.

ART 3160-3 Art History: Theoretical Approaches to Art (3 + 0)

Prerequisite: ART 2020 (being changed, see department)

This course is a seminar. Students learn critical theories that are applicable to art from different cultures. They learn to analyze and discuss these theories and apply their knowledge to the evaluation of works of art.

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 3175-3 Figure Painting (0 + 6)

Prerequisite: ART 2100

Pre or Corequisite: ART 3150

In this course, students will undertake literal and interpretive investigations of the human figure using a variety of painting techniques.

ART 3180-3 Watermedia (0 + 6)

Prerequisite: 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 (being changed, see department) and ART 2200

Introduction to the extended personally directed project. Problems given to broaden technical skills. Aesthetic and historical issues introduced.

ART 3250-3 Intermediate Printmaking (Lithography) (0 + 6)

Prerequisites: ART 2020 (being changed, see department) and ART 2250

Black-and-white and colored lithographic prints are developed through traditional and contemporary techniques.

ART 3255-3 Singular Impressions Workshop (0 + 6)

Prerequisites: ART 1110, ART 1180, and ART 1210

This course provides instruction in the use of specific methods, materials, and equipment associated with the production of monotypes and monoprints. The creation of print images will emphasize individual development of a unique aesthetic and personal concept.

ART 3260-3 Intermediate Printmaking (Intaglio) (0 + 6)

Prerequisites: ART 2020 (being changed, see department) and ART 2250

Various intaglio techniques are explored to allow the student to develop a unique personal expression.

ART 3270-3 Intermediate Printmaking (Silkscreen) (0 + 6)

Prerequisites: ART 2020 (being changed, see department) 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 1030 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 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 3310-3 Functional Sculpture (0 + 6)

Prerequisite: ART 2300 or permission of instructor

This course is designed to develop the individual's ability to design functional objects with an emphasis on sculptural concerns. The course provides instruction in the specific use of materials and technical processes for both traditional and non-traditional materials.

ART 3320-3 Glassworking (0 + 6)

Prerequisite: ART 2300 or permission of instructor

This studio course is designed to give students a broad understanding of working with glass. The course will cover technical information on glass, a brief history of glass working, kiln operation, and cold, warm and hot glass techniques.

ART 3340-3 Illustration I (0 + 6)

Prerequisite: ART 2400 or permission of instructor

This course will help the student develop the ability to address visual communication strategies and solutions through hand-rendered illustrative means. Students will be encouraged to experiment with a wide variety of media, techniques and compositions through a variety of

projects. In addition, the course will give students insights into the demands of a professional illustration career.

ART 3350-3 Typography II (0 + 6)

Prerequisites: ART 2190 and ART 2400

Continuing the exploration of visual problem solving through the use of typography, this course experiments with typographic form, function, meaning, and aesthetics. Student will refine their skills in typography while expanding conceptualization skills and use of diverse materials for such communication.

ART 3380-4 Introduction to Art Education (3 + 2)

Prerequisites: 27 semester hours of art major (including core) course work, or permission of instructor

This lecture/field experience course will introduce the historical, philosophical, social, political, legal, psychological, and educational concepts that have influenced the development of art education in the United States. The current status of advocacy for the arts and art education within the context of general education will be explored. The field experience will provide practical application of concepts and standards of K-12 art classrooms, and include performance evidence of beginning teaching skills.

ART 3400-3 Identity & Systems Design (0 + 6)

Prerequisite: ART 3350

Pre or Corequisite: ART 2180

This course focuses on historical and contemporary development of identity marks and identity systems. Students will create marks and apply an intentional system of thought to design strategies, which emphasize strong, clear conceptualization processes over a series of related pieces.

ART 3410-3 Digital Video Art (0 + 6)

Prerequisite: ART 2180

The student will learn to use video-authoring software to create fine art video. Concepts covered will include ideology of time-based media in relation to linear and non-linear modes of narrative and documentary video; history of video art; “high” and “low” video; and video’s relationship to marginalized groups, semiotics, and the qualities inherent to the medium. Techniques covered will include digital video editing principles, transitions, audio, lighting, use of color, and virtual clips.

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 3600-3 Intermediate Ceramics (0 + 6)

Prerequisites: ART 2020 (being changed, see department), 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 (being changed, see department), ART 2650

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 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)

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 3910-3 Site Specific Studies in Art History: Variable Topics (3 + 0)

Prerequisite: Permission of instructor

Lectures, discussions, and directed research in this course prepare students to travel to a city or a region in order to experience art and architecture in their intended location. Emphasis will be placed upon the historical, geographical, and philosophical context of the monuments, buildings, and other art works visited. May be repeated for credit under different topics.

ART 3950-3

(WMS 3950) Women's Art/Women's Issues (3 + 0)

Prerequisites: WMS 1001, ART 1040 or ART 2000 (being changed, see department), 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)

ART 4010-3 Modern Art History: Theory and Criticism (3 + 0)

Prerequisites: ART 2010 and ART 2020 (both courses being changed, see department) 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 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

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

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 Interactive Multimedia Art (0 + 6)

Prerequisite: ART 3410

This course explores concepts and techniques of producing interactive timebased artwork using compact discs. Students will critically analyze their own work along with the work of professional artists using compact discs as their medium.

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 4240-3 Photography Assistantship (0 + 6)

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 a 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 1030 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

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.

ART 4380-4 Art Methods K-12 (1 + 6)

Prerequisites: ART 3380, or permission of instructor

This lecture/studio/field experience course, preparing K-12 art specialists, is designed to create and implement visual art curriculum through theoretical and practical approaches to art education. Standards based methodologies will be developed and then tested in kindergarten through high school art classrooms.

ART 4400-3 Publication & Book Design (0 + 6)

Prerequisite: ART 3400

This advanced course explores the sequential, narrative and/or editorial nature of designing for publications and books. Multiple design forms and principles are covered. Exploration may include the following applications: magazines and books, comprehensive brochures, annual reports, self-published booklets or print materials in bound multiples.

ART 4430-3 Dimensional Design (0 + 6)

Prerequisite: ART 4400

Students will create solutions for three-dimensional design problems. Students will experiment with notions of form, function and visual communication as related to the exploration of packaging and containers. Emphasis is on investigative use of materials, developing economic and inventive forms, and the application of formal design properties to interior and exterior packaging solutions.

ART 4440-3 Concepts in Motion (0 + 6)

Prerequisite: ART 4400

Students will create design solutions for complex problems, which rely upon motion and time to communicate visually. Students will explore highly conceptual problems through use of the computer. Emphasis is on dynamic, thoughtful and appropriate visual communication.

ART 4490-3 Communication Design Internship (0 + 10)

Prerequisite: ART 3400

This advanced course focuses on a Communication Design internship selected for its professional challenges and overall integrity. Students gain “real world” experiences in the world of design, building upon classroom experiences.

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 4580-6 Student Teaching and Seminar: Elementary K–6 (1 + 40)

Prerequisites: successful completion of all requirements of the major, minor, elementary licensure program and General Studies content courses; successful completion of Gateway requirements for each level (I-IV) of the elementary licensure program, including initial evaluation and sign-off of the program requirement (e.g., teacher work sample/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 (grades K-6). Fifteen hours of seminar is part of the field experience requirement. To pass this course, teacher-candidates must be minimally rated as proficient in all Performance-Based Standards for Colorado Teachers to receive MSCD recommendation for teacher licensure. Each student teacher is required to present a completed teacher work sample to the college supervisor and peers at a student teaching seminar. (Senior Experience)

ART 4590-6 Student Teaching and Seminar: Secondary 7–12 (1 + 40)

Prerequisites: completion of all requirements of the teaching major and the Secondary Education Program; initial sign-off on program requirements (e.g., teacher work sample/portfolio) by faculty advisor

This course is a supervised, full-time, 16-week student teaching experience in an accredited public or private secondary school, providing increasing responsibility for the instruction, assessment, and supervision of an identified group of learners, 7–12 grade levels. Regularly scheduled observations and 15 hours of seminars conducted by an appointed college supervisor are part of the student teaching requirement. Teacher candidates must complete a teacher work sample and be rated as proficient in all Performance-Based Standards for Colorado Teachers to receive MSCD recommendation for teacher licensure. (Senior Experience)

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 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 4750-3 Senior Experience Studio: Portfolio Development and Thesis Exhibit (0 + 6)

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 4751-3 Communication Design Senior Experience: Portfolio Development (1 + 4)

Prerequisites: Satisfaction of all Level I and Level II General Studies course requirements and senior standing

Pre or Corequisite: ART 4010

This capstone course is tailored to the needs of the Communication Design student. The student will present design work in a senior thesis show, produce slide and/or CD portfolios, create a personal identity package, and write conceptual statements about specific design solutions. This effort will result in the production of a body of work that will assist the student in transitioning to the profession of Communication Design. (Senior Experience)

ART 4755-3 Exhibiting the Art Object (3 + 0)

Prerequisites: ART 2001, ART 2002 and at least 12 semester hours of art history or art theory/criticism

Pre or Corequisite: ART 4010

ART history and art theory/criticism students in this course will be able to apply their knowledge and analytical skills as they plan an exhibition of art works based upon their discussions with curators, conservators, and other museum professionals. (Senior Experience)

ART 4830-3 Studio Assistantship (0 + 6)

Prerequisite: Permission of instructor

This studio course allows the student to put into use the studio skills learned in previous courses to assist faculty and other students through demonstrating and critiquing. Students will learn to run laboratories, maintain tools and equipment, mix chemicals (if appropriate) and handle and stock supplies in an appropriate manner. They will demonstrate techniques, and assist other students with technical and creative questions.

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 individualized mixed media solutions to complex conceptual problem solving.

ART 4841-1-4 Directed Studies in Ceramics (0 + 2-8)

Prerequisite ART 4610

Advanced studio work in ceramics with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4842-1-4 Directed Studies in Communication Design (0 + 2-8)

Prerequisite: ART 4400

Advanced studio work in communication design with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques and skills learned

in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4843-1-4 Directed Studies in Computer Imaging (0 + 2-8)

Prerequisite: ART 4510

Advanced studio work in computer imaging with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, softwares and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4844-1-4 Directed Studies in Drawing (0 + 2-8)

Prerequisite: ART 4110 or ART 4090

Advanced studio work in drawing with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4845-1-4 Directed Studies in Jewelry and Metal (0 + 2-8)

Prerequisite: ART 4660

Advanced studio work in jewelry and metalsmithing with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4846-1-4 Directed Studies in Painting (0 + 2-8)

Prerequisite: ART 4160

Advanced studio work in painting with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4847-1-4 Directed Studies in Photography (0 + 2-8)

Prerequisite: ART 4210

Advanced studio work in photography with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4848-1-4 Directed Studies in Printmaking (0 + 2-8)

Prerequisite: ART 4260

Advanced studio work in printmaking with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4849-1-4 Directed Studies in Sculpture (0 + 2-8)

Prerequisite: ART 4310

Advanced studio work in sculpture with emphasis on the production of finished work in preparation for the senior show. The student will integrate techniques, materials and skills learned in previous courses to develop an individual style and create a coherent body of work. Variable credit.

ART 4850-1-4 Directed Studies in Art Education (0 + 2-8)

Prerequisite: ART 4380

Advanced course for art education students with emphasis on creation of a portfolio of exemplary projects for classroom use. Variable credit.

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.

Special Note: No more than four semester hours in varsity sports (ATH) courses will be counted toward a bachelor's degree for students who are not majoring in Human Performance, Sport and Leisure Studies.

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 inter-relationships 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 and Guaranteed Transfer–SC1)

BIO 1090-1 General Introduction to Biology Laboratory (0 + 3)

Prerequisite: minimum performance standard on reading, writing and mathematics preassessment placement tests

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 and Guaranteed Transfer–SC1)

BIO 1180-4 General Organismic Biology (3 + 2)

Prerequisites: BIO 1080 and BIO1090 or equivalent with a grade of “C” or better or permission of instructor

This course is a survey of the five kingdoms/three domains of organisms. It is designed to meet the biology requirements for non-biology science students who aspire to have a well-rounded background in the life sciences.

BIO 2100-5 General Botany (3 + 4)

Prerequisites: 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 (4 + 3)

Prerequisites: BIO 1080 and BIO 1090 or equivalent

This is a one-semester introduction to the concepts and principles of taxonomy, nutrition, respiration, reproduction, excretion, locomotion, environmental awareness, structure-function, economic importance, ecology, and evolution, for all major animal groups; new information derived from molecular biology, developmental regulatory genetics, and paleontology has been added to enhance student understanding of animal evolution.

BIO 2310-4 Human Anatomy and Physiology I (3 + 3)

Prerequisites: 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

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 student also takes BIO 3320.

BIO 2400-5 General Microbiology (4 + 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 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)

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 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)

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 3230-5 Principles of Human Anatomy and Physiology (3 + 4)

Prerequisites: BIO 1080 and BIO 1090 or permission of instructor

This course addresses the structure and function of the human body. Topics include homeostasis, tissues, the musculoskeletal system, neurophysiology, endocrinology, circulation, and

respiratory, digestive, urinary and reproductive systems. Course content and class level are designed for psychology majors and teacher education students.

BIO 3270-4 Parasitology (3 + 2)

Prerequisites: 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.

BIO 3330-4 Advanced Human Cadaver Anatomy (2 + 6)

Prerequisites: BIO 1080 and 1090; a course in human anatomy and physiology I and upper-division standing. One semester of organic chemistry is recommended. (This is an upper-division course in human anatomy designed for biology majors and other students who need upper division human anatomy training in preparation for health science careers.)

This course presents human gross anatomy from a regional perspective, using clinical applications as a basis for anatomical understanding. Designed for biology majors entering professional and graduate schools.

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)

Prerequisites: 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 3471-3

(WMS 3470) Biology of Women (2 + 2)

Prerequisite: BIO 1000 or WMS 1001 or permission of instructor

An examination of the anatomy and physiology of sex in humans, the mechanisms involved in formation of sex and gender, and the interactions between science, society, and medical practice with regard to issues of sex and gender. Credit will be granted for only one prefix: BIO or WMS.

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. Credit will be granted for only one prefix: BIO or SPE.

BIO 3501-1

(SPE 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. Credit will be granted for only one prefix: BIO or SPE.

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. Credit will be granted for only one prefix: BIO or HES. (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 translation is presented. Genetic variation and human genetic diseases are discussed.

BIO 4050-4 Advanced Cell and Molecular Biology (4 + 0)

Prerequisite: BIO 3050 with a grade of “C” or better

A continuation and extension of subjects introduced in Biology 3050. Topics emphasize cell-to-cell signaling, control over the eukaryotic cell cycle, and molecular events associated with the loss of cell control.

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 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 ecological niches. Includes consideration of behavior, physiology, and classification. Required field trips may include one weekend trip.

BIO 4400-4 Microbial Physiology (3 + 3)

Prerequisites: BIO 2400 or equivalent or permission of instructor

Pre or Corequisite: CHE 3100 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.

BIO 4510-4 Microbial Ecology (4 + 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 is 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)

Prerequisites: 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)

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)

Pre or Corequisite: MTH 1110 with a grade of “C” or better, or permission of instructor

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)

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. Credit will be granted for only one prefix: CET or MET.

CET 1210-3

(MET 1210) Technical Drawing II (1 + 4)

Prerequisite: CET 1200 or MET 1200 with a grade of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: CET or MET.

CET 2100-4 Structural Drawing (2 + 4)

Prerequisite: CET 1210 with a grade of “C” or better, or permission of instructor

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)

Pre or Corequisite: MTH 1410 with a grade of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: CET or MET.

CET 3100-3 Construction Methods (3 + 0)

Prerequisite: junior or senior standing, or permission of instructor

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 or senior standing, or permission of instructor

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 or permission of instructor

This course examines the “time value of money” as a basis for evaluating economic alternatives required in engineering decision-making.

CET 3130-3

(MET 3130) Mechanics of Materials (3 + 0)

Prerequisites: CET 2150 or MET 2150 and MTH 2410 all with a grade of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: CET or MET.

CET 3140-1

(MET 3135) Mechanics of Materials–Laboratory (0 + 2)

Prerequisites: CET 2150 or MET 2150 and COM 2610 all with a grade of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: CET or MET.

CET 3150-3

(MET 3110) Thermodynamics (3 + 0)

Prerequisites: MTH 1410 and PHY 2010 or PHY 2311 with grades of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: CET or MET.

CET 3160-3

(MET 3160) Mechanics II–Dynamics (3 + 0)

Prerequisites: CET 2150 or MET 2150 and MTH 2410 with grades of “C” or better, or permission of instructor

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 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. Credit will be granted for only one prefix: CET or MET.

CET 3170-3 Introduction to Structural Analysis (3 + 0)

Prerequisite: CET 3130 with a grade of “C” or better, or permission of instructor

This course presents first principles of structural analysis applied to statically determinate and

indeterminate structures.

CET 3180-3

(MET 3180) Fluid Mechanics I (3 + 0)

Prerequisite: CET 3160 or MET 3160 with a grade of “C” or better, or permission of instructor

This course covers physical properties of fluids, hydrostatics, kinematics, energy considerations, momentum, and incompressible flow in pipes. Compressible fluid flow will also be studied.

Credit will be granted for only one prefix: CET or MET.

CET 3190-3 CET Hydrology (3 + 0)

Prerequisite: CET 3180 with a grade of “C” or better, or permission of instructor

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 or senior 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 with a grade of “C” or better, junior or senior standing, or permission of instructor

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.

CET 4120-3 Concrete Design I (3 + 0)

Prerequisite: CET 3170 with a grade of “C” or better, or permission of instructor

This course is a basic introduction to the fundamental principles of reinforced concrete design.

CET 4130-3 Soils Mechanics (2 + 2)

Prerequisites: CET 3130 and CET 3180 with grades of “C” or better, or permission of instructor

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 with a grade of “C” or better, or permission of instructor

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 4400-3 Steel Design I (3 + 0)

Prerequisite: CET 3170 with a grade of “C” or better, or permission of instructor

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 with a grade of “C” or better, or permission of instructor

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 with a grade of “C” or better, or permission of instructor

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 with a grade of “C” or better, or permission of instructor

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 1100-4 Principles of Chemistry (4 + 0)

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

Corequisite: CHE 1150 Principles of Chemistry Laboratory

This course is a study of the fundamentals of chemistry. 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 - Completion of both CHE 1100 and CHE 1150 with passing grades is required to receive General Studies credit)

CHE 1150-1 Principles of Chemistry Laboratory (0+2)

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

Corequisite: CHE 1100 Principles of Chemistry or permission of department chair

This course is an introduction to the academic chemistry laboratory and is intended for students with no prior experience. The course will cover health and safety issues, preparation and use of common glassware/lab equipment, proper recording of qualitative and quantitative observations, and common lab techniques. (General Studies - Level II, Natural Science - completion of both CHE 1150 and CHE 1100 with passing grades is required to receive General Studies credit)

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)

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.

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

Pre 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

Pre 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)

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 Laboratory (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

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

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)

Prerequisites: 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

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 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 4710-6 Criminalistics Internship II (0 + 18)

Prerequisite: CHE 4700

Laboratory internship experience for chemistry majors with a concentration in criminalistics. (Senior Experience)

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)

CHICANA AND CHICANO STUDIES

CHS 1000-3 Introduction to Chicana/o Studies (3 + 0)

Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests

This course introduces the range of interdisciplinary curricula which constitutes Chicana/o Studies. It is history and social science based and also analyzes, among other themes, the Chicana/o and art, literature, education and politics. (General Studies—Level II, Social Sciences; Multicultural)

CHS 1010-3

(HIS 1910) History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course examines indigenous cultures of Meso-America during the pre-Columbian period with a focus on social, political, religious, 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 Chicana/o in the Southwest: 1810 to Present (3 + 0)

Prerequisites: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course concentrates on the era from Mexican Independence (1810-1821) through the modern Chicana/o era. This historical survey provides an overview of the Mexican population born and living in the Southwestern United States and provides specific attention on Chicana/o history in Colorado. 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 Chicana/o Literature (3 + 0)

Prerequisite: CHS 1000 or permission of instructor

This course reviews major literary genres associated with Chicana and Chicano creative expression from the 1800s to the present including poetry, drama, and the novel. Credit will be granted for only one prefix: CHS or ENG. (General Studies–Level II, Arts and Letters)

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)

Prerequisites: 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: 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)

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 3025-3

(ART 3025) Contemporary Chicano Art (3+0)

Prerequisites: ENG 1010 and ENG 1020

This course is a survey of contemporary Chicano art. The historical, religious, social and political content of the artworks will be studied. Students will examine recurrent themes, icons, imagery and forms within the historical timeline. (Art elective; does not apply to upper division art history requirements.) Credit will be granted for only one prefix: CHS or ART.

CHS 3100-3

(SOC 3130) The Chicana/o Community (3 + 0)

Prerequisites: CHS 1000 or permission of instructor; satisfaction of Level I General Studies course requirements

This course offers an in-depth study of the history of Chicana/o community organizations, the process by which they came about, and information relative to existing organizations and their functions in the Chicana/o 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)

Prerequisites: 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

(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. Credit will be granted for only one prefix: CHS or WMS.

CHS 3600-3 Mexico and Chicana/o Politics (3 + 0)

Prerequisite: CHS 1000 or permission of instructor

This course reviews the main approaches which have been utilized, in the past and in the present, to comprehend Mexico and Chicana/o politics.

CHS 3700-3

(AAS 3700/PSY 3700/WMS 3700) Psychology of Group Prejudice (3 + 0)

Prerequisites: PSY 1001 or AAS 1010 or CHS 1000 or WMS 1001

This course covers psychological theory and research that examines causes, consequences, and ways of reducing prejudice and discrimination. Various expressions of prejudice and discrimination are addressed, most notably racism and sexism. Credit will be granted for only one prefix. (Multicultural)

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

Facilitates in-depth study of selected topics in Chicano studies.

CHS 3801-3

(MDL 3800) Mexico: History, Life, and Culture (3 + 0)

Prerequisite: one year of Spanish or permission of instructor

This course is part of a study abroad program and provides an interdisciplinary understanding of Mexican civilization. It specifically deals with a social and historical approach to Mexican society and examines the traditions and institutions that shape the Mexican way of life. Credit will be granted for only one prefix: CHS or MDL.

CHS 4010-3 The Chicano Movement (3 + 0)

Prerequisites: 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 Chicana/o Studies (3 + 0)

Prerequisites: six hours of upper-division courses in CHS or permission of instructor and preferably senior standing

This course enhances the development of research skills, theory construction, and application of theory to the discipline of Chicana/o studies. The course requires an in-depth research project and a research paper on a selected topic. It emphasizes critical understanding of the literature and the writing of a research paper. The course is designed primarily for Chicana/o studies majors and minors. (Senior Experience)

CRIMINAL JUSTICE AND CRIMINOLOGY

CJC 1010-3 Introduction to the Criminal Justice System (3 + 0)

The course examines the criminal justice system in the United States including its problems and reactions to prevailing social forces. The continuum of the justice system from victims of crime, the police, the courts, to corrections, is surveyed. The topics covered are for students who are interested in the justice system or who are going to major or minor in criminal justice. (General Studies–Level II, Social Sciences)

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, 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)

Prerequisites: 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 2500-3 Criminal Investigation (3 + 0)

Prerequisites: CJC 1010

This course includes a survey of processes, procedures and qualifications needed to conduct, record, report and manage a criminal investigation. The course includes information about supporting victims and witnesses of crime. The use of forensic science and other technical assistance is examined as support for other procedures.

CJC 2910-1-2 Critical Issues in Criminal Justice (1-2 + 0)

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)

Prerequisites: 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

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)

Prerequisite: 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)

Prerequisite: 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.

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 3510-3 Drug Abuse: Legal Issues and Treatment (3 + 0)

Prerequisite: 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, 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 Topics) (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)

Prerequisite: 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)

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)

Prerequisite: 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)

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)

Prerequisite: 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 4675-3 Seminar in Criminal Justice Research (3 + 0)

Prerequisite: senior standing, completion of CJC 1010, and a minimum of 15 additional credit hours of CJC courses

The course provides the student with information and practical experience in research methods for the criminal justice system, including: finding and evaluating available research, the tools, techniques and methods of research, legal research and the writing of a research paper or report.

CJC 4676-1 Criminal Justice Research - Lab (0 + 2)

Prerequisites: senior standing, completion of CJC 1010 and a minimum of 15 additional credit hours of CJC courses

Corequisite: CJC 4675

This course allows student to complete a senior level research paper that will be a major project. The student must be concurrently enrolled in CJC 4675. The course involves a minimum of 30 hours of work outside of the classroom and in addition to the work required for CJC 4675.

CJC 4750-3 Crime Prevention and Loss Reduction (3 + 0)

Prerequisites: 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

(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.

This course may not be applied to the 120 hours required for a bachelor or science degree in the School of Business.

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 2010-3 Computer Applications for Business (3 + 0)

Prerequisites: CMS/CSS 1010 with a grade of “C” or better, or appropriate score on the Computer Information Systems computer literacy screening test

This course is an introduction to fundamental business information systems from a business perspective. It includes computer hardware and software, use of business productivity tools and the Internet, and an introduction to fundamental and functional business information systems. 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 2300-3 Business Statistics (3 + 0)

Prerequisites: MTH 1320

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 descriptive statistics, probability theory, probability distributions, sampling distributions, point estimates, confidence intervals, and tests of hypotheses, 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 Database Management Systems (3 + 0)

Prerequisite: CMS 2110

This course provides an introduction to the design, development, implementation, and manipulation of databases as well as covering the essentials of file processing. The student will create information level database designs from a set of user requirements and implement those designs employing a 4GL database tool. Finally, the student will be introduced to current topics in the database field, which may include Data Warehousing, Distributed Systems, Object-Oriented Systems, Spatial Databases, and Database Driven Web Sites.

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., memory, processes, I/O and files), control language, shells, scripts and system utility software. It is not a UNIX system administration course.

CMS 3130-3 Business Applications in C and UNIX (3 + 0)

Prerequisite: 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 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)

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 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 3340-3 Advanced Business Statistics (3 + 0)

Prerequisite: CMS 2300

This course is a study of advanced statistical methods and techniques and their application in business decision-making situations. This course will cover the following topics: inferences about population variances, tests of goodness of fit and independence, analysis of variance, experimental design, simple linear regression, multiple regression analysis, regression model building, forecasting, and non-parametric methods.

CMS 4030-3 Web Site Administration (3 + 0)

Prerequisite: 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)

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 Management Systems (3 + 0)

Prerequisites: CMS 3060 and CMS 2110 (or advanced programming language course); senior standing

This course provides an in-depth understanding of database management systems by extending the database concepts and programming skills developed in prerequisite courses. The student will be presented with a variety of realistic business problems and be asked to produce functional solutions to these problems. The course will use the Oracle Developer 2000 or similar software to drive the design and development of business application software.

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 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 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.

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 2470-3 Basic DVD Authoring (3 + 0)

This course is designed to introduce students to the tools and techniques necessary to produce a DVD (Digital Versatile Disc) application. Students will learn to design an interactive application and work with media assets such as graphics, audio and video and produce a DVD disc according to DVD specifications.

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 2610-3 Introduction to Technical Writing (3 + 0)

Prerequisite: ENG 1010 or permission of instructor

This course offers instruction and practice in the specific techniques required for writing in the areas of technology and science. Particular emphasis is placed on report contents and formats for government, science and industry, and the various audiences requiring technical information. The course incorporates the handling of statistical and other computational elements, as well as graphic components.

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 or senior 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 3400-3 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 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

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 3460-3 Virtual Reality in Corporate Communications (3 + 0)

Prerequisite: COM 2480

This course provides students with principles and concepts necessary to use virtual reality technologies and the World Wide Web to communicate technical information in corporate settings. Students will study applications for the technology and will plan, research, and produce virtual reality projects.

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)

Prerequisites: 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.

COM 3530-3 Corporate Cultures (3 + 0)

Prerequisites: 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: permission of instructor

This course presents techniques for editing technical publications including all levels of edit, document management and collaboration with writers.

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)

Prerequisite: 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.

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)

Pre or Corequisite: six hours of COM, JRN or business courses or permission of instructor

This course presents U.S. legal practices that impact professional communicators. It places special emphasis on the federal and state court systems, defamation, intellectual property, privacy, and federal trade regulations as applied to a variety of media.

COM 4380-3 Law of Cyberspace–Communications (3 + 0)

Pre or Corequisite: COM 3780 or permission of instructor

The course emphasizes U.S. and international law relating to the Internet, WEB, and satellite transmissions relevant to Technical Communications. The course focuses on such areas as intellectual property, privacy of information, fraud, security, adult materials, and penalties.

COM 4401-3 Advanced Nonlinear Video Editing (3 + 0)

Prerequisites: COM 2400, COM 3400 or permission of instructor

This course will focus on the techniques necessary to achieve properly edited informational programs. Acquisition, manipulation, compression and digitization of video and audio footage for nonlinear systems will be discussed and demonstrated. Students will learn advanced editing techniques. Students will also learn when to employ specialized transition devices and how to transform video clips.

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

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)

Prerequisites: 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 or senior standing or 12 hours of COM-designated courses of which nine hours are upper level

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 1050-4 Computer Science 1 (4 + 0)

Prerequisite: 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.

CSI 2050-4 Computer Science 2 (4 + 0)

Prerequisite: CSI 1050 with a grade of "C" or better, or permission of instructor

This course, a continuation of CSI 1050, 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 1050 and EET 2310 with grades of "C" or better, or permission of instructor

This course is a study of the internal organization of computers. Machine level representation of data, digital logic, central processor and memory organization, instruction level architecture, secondary memory organization, interfacing and communication, multiprocessing organization are covered. The vehicle for exploration of the computer hardware is assembly language programming.

CSI 3050-4 Computer Science 3 (4 + 0)

Prerequisite: CSI 2050 with grade of "C" or better, or permission of instructor

This course, a continuation of CSI 2050, includes graphs, digraphs, balanced binary search trees, red-black trees, B-trees, B*-trees, B+-trees, and hashing. Students will write a variety of programs and some of these will include event-driven programming and graphical user interfaces. Two programming languages will be used in this course.

CSI 3210-4 Principles of Programming Languages (4 + 0)

Prerequisites: CSI 3050 with a grade 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 studied.

CSI 3240-2 Introduction to the Theory of Computation (2 + 0)

Prerequisites: CSI 3050 and MTH 3100 with grades of "C" or better, or permission of instructor

This course explores language theory and computability. Language theory includes: regular expressions, regular languages, and finite automata (deterministic and non-deterministic); context-free languages and pushdown automata; and language grammars. Computability includes: Turing machines and their computing power; unsolvable problems; and intractable problems (NP-Completeness).

CSI 3280-4 Object-Oriented Software Development (4 + 0)

Prerequisite: CSI 2050 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 3400-4 Computer Architecture (4 + 0)

Prerequisites: CSI 2050 and CSI 2400 with grades of “C” or better, or permission of instructor
Computer architecture concepts are extended to include advanced architectural concepts based on the quantitative analysis and evaluation of modern computing systems. These include advanced instruction set architecture designs, multilevel and set associative caches, advanced pipelining, out-of-order processors including superscalar and VLIW techniques, microprogramming concepts, multiprocessing architectures, advanced memory organizations, input/output, and network-oriented interconnections.

CSI 3510-4 Computer Graphics (4 + 0)

Prerequisites: CSI 2050 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 3600-4 Operating Systems (4 + 0)

Prerequisites: CSI 2400 and CSI 3050 with grades of “C” or better, or permission of instructor
This course is an introduction to the design, development, and implementation of modern computer operating systems. The topics covered include input/output processing, interrupt handling, system resource management, multitasking, communication between processes, file system implementation, process and thread control, and virtual memory management.

CSI 3700-4 Computer Networks (4 + 0)

Prerequisites: CSI 2050 and CSI 2400 with grades 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 3800-2 Fundamentals of Relational Database Systems (2 + 0)

Prerequisites: CSI 2050 and MTH 3100 with grades of “C” or better, or permission of instructor
This is a course in relational database theory. Topics covered include entity-relationship schema, relational algebra, SQL queries, normalization, decompositions of a relational schema that are dependency-preserving and/or lossless.

CSI 4050-4 Algorithms and Algorithm Analysis (4 + 0)

Prerequisites: CSI 3210, CSI 3240, MTH 3210 with grades of “C” or better, or permission of instructor

The emphasis of this course is on the design, analysis, and evaluation of efficient algorithms for

a wide variety of computing problems.

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)

Prerequisites: CSI 3050 with a grade of “C” or better, COM 2610, PHI 3370, 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 and progress will be evaluated in conjunction with industry representatives. (Senior Experience)

CSI 4281-3 Software Requirements (3 + 0)

Prerequisite: CSI 4250 or permission of department

This course develops basic competency in software requirements engineering and management. Students gain knowledge and practical experience with the fundamentals of requirements elicitation, explication, validation, management, and assessment.

CSI 4282-3 Software Development Management (3 + 0)

Prerequisite: CSI 4250 or permission of department

This course provides students with exposure to a broad set of principles and practices affecting the success and failure of software development efforts and productivity of teams involved in such efforts. The role and tasks of the software development manager are explored in detail. Note that this course is specific to software development and is not a general management course (see MGT courses).

CSI 4283-3 Software Testing and Quality Assurance (3 + 0)

Prerequisite: CSI 4250 or permission of department

This course exposes the student to the key concepts and practices in software testing and quality assurance. Topics covered include aspects of software quality assurance relevant to all phases of the software life cycle, alternative approaches to software testing, application of current automated tools, standards, and emerging trends.

CSI 4284-3 Software Product Engineering (3 + 0)

Prerequisite: CSI 4250 or permission of department

This course surveys fundamental topics necessary for successful software product engineering, including usability engineering, software configuration management (SCM), and an overview of

legal issues for software engineers.

CSI 4285-3 Best Practices in Software Development (3 + 0)

Prerequisites: CSI 4260 or two of: CSI 4281, CSI 4282, CSI 4283, CSI 4284; or permission of department

This course exposes the student to current best practices and emerging methodologies in software engineering and software product development. Topics are chosen to reflect the current state of the care and practice. (A typical set of such topics includes: software architecture as a discipline, design patterns, eXtreme Programming, recent technology in security, and aspect-oriented programming.)

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

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 1201-3 Understanding Programming (2 + 2)

Prerequisites: CSS 1010, or equivalent knowledge, and satisfaction of the General Studies Level I Mathematics requirement or permission of instructor

This is an introductory course where students learn the basic concepts of computer programming, including the main constructs of object-oriented programming, problem solving and design. A supportive programming language is used that provides a smooth transition to using the Java programming language.

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 2227-3 The C Programming Language (3 + 0)

Prerequisites: CSI 1050 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 1050 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 2267-4 The Java Programming Language (4 + 0)

Prerequisites: CSS 1201 or CSS 1247 or previous knowledge of a programming language, and satisfaction of General Studies Level I Mathematics requirement or permission of instructor

This course presents a study of the Java programming language and its applications in computing for experienced programmers. Students will write Java application programs and Java applets. In addition, students will write programs that are event driven and have graphical user interfaces.

CSS 2425-2 Introduction to UNIX (2 + 0)

Prerequisite: CSS 1201 or CSS 1247 or CSI 1050 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 3227-3 UNIX Programming (3 + 0)

Prerequisite: CSS 2425 and knowledge of a programming language, or permission of instructor

This course presents a study of UNIX programming using the C programming language.

Students will write C programs that interact with the UNIX filesystem, create processes and threads, utilize UNIX signals, and use interprocess communication.

CSS 3607-4 Advanced Web Programming: Java and Perl (4 + 0)

Prerequisite: CSI 1050 or CSS 1247 or CSS 2267 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)

Prerequisite: CSI 1050 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 (OLE) and the use of dynamic link libraries (DLL's) as well as methods for handling such multimedia elements as sound, video and animation.

CSS 4727-3 Network Programming (3 + 0)

Prerequisite: knowledge of TCP/IP networking and the Java programming language, or permission of instructor

The TCP/IP protocol provides the dominant form of client/server communications. This course enables the student to write both client and server applications for use on the Internet. Topics include methods for connecting physically disparate programs, using protocols between a client and server, and creating long-running servers.

EARLY CHILDHOOD EDUCATION

ECE 2340-3 Foundations of Early Childhood Education (3 + 0)

Corequisite: ECE 2350

This course introduces the historical and philosophical foundations of early childhood education as well as current social, educational, multicultural, and law related issues and trends. Emphasis will be on the knowledge, attitudes, and decision-making skills essential for continued academic work in a standards-based curriculum and corequisite field experience course, ECE 2350, in urban, multicultural, early childhood settings serving children from birth through age eight. (Multicultural)

ECE 2350-1 Foundations of Early Childhood Education: Field Experience (0 + 4)

Corequisite: ECE 2340

This laboratory experience provides 60 hours of guided observation and participation in the Metropolitan State College of Denver's Child Development Center, ensuring practical application of the instruction received in the companion course, ECE 2340. The emphases are on observation skills; interactions with children of preschool ages from diverse ethnic, cultural, and economic backgrounds; and implementation of developmentally appropriate activities. An exploration will be made of what makes a good teacher and how one creates a community of learners in a well managed program.

ECE 3150-3 Developmentally Appropriate Practice I: Planning and Management with Literacy Emphasis (3 + 0)

Prerequisites: PSY 1800, RDG 3110

Corequisites: ECE 3160, RDG 3120

Students will learn to make effective developmentally appropriate decisions regarding standards and objectives, instructional planning, methodology, assessment, and classroom management. They will analyze characteristics of development of 6-8 year olds as they relate to literacy. This course also focuses on parents as partners in the education of their children and emphasizes planning and activities that encourage parent involvement. Students must take ECE 3160 concurrently, a 45-hour internship completed in a primary grade in a public school. Theory, research, and content in ECE 3150 are directly and substantially related to observations and

participation in in ECE 3160.

ECE 3160-1 Developmentally Appropriate Practice I: Field Experience (0 + 3)

Prerequisites: PSY 1800, RDG 3110

Corequisites: ECE 3150, RDG 3120

This 45-hour field experience is taken in conjunction with ECE 3150 and RDG 3120. The student will spend three hours per week practicing decision-making, planning instructional techniques, and assessing skills in an urban multicultural public school classroom. They will also be planning developmentally appropriate standards-based literacy lessons. Each teacher candidate will develop a partnership with a parent to promote student development and achievement.

ECE 3330-3 Social Studies and Expressive Arts for the Young Child (3 + 0)

Prerequisite: PSY 1800

This course requires teacher candidates to document, analyze, design, implement, and evaluate developmentally appropriate social studies and expressive arts curriculum and learning environments. Emphasis is on ways to make decisions in a democratic society as well as to maintain a classroom atmosphere and environment that allows creative expression and encourages and supports creativity in art, music, and movement.

ECE 3340-4 Administration of Early Childhood Programs (4 + 0)

Prerequisites: ECE 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, infant/toddler care, and after-school programs. Examines personnel management, program development, fiscal administration, marketing, and fund-raising.

ECE 3350-3 Documentation, Assessment, and Decision-Making for Early Childhood (2 + 2)

Prerequisite: PSY 1800

This course emphasizes the basic foundations for documentation, assessment, and decision-making to facilitate children's growth and emerging, standards-based curriculum for children from birth to age eight. Informal and observational methods of assessment will be stressed, along with portfolio development, more traditional teacher-made tests, and standardized tests. Candidates will observe and assess infants and toddlers, preschoolers, and primary age children for the purpose of planning developmentally appropriate instructional strategies for a total of 30 hours in supervised field-based settings. Various forms of technology will be used to document children's work.

ECE 4330-3 Science, Health, and Mathematics for the Young Child (3 + 0)

Prerequisites: PSY 1800 and completion of General Studies Level I Mathematics and Level II Natural Science requirements

This course emphasizes 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 by utilizing the Colorado model content standards.

ECE 4360-3 Cultural Influence on the Socialization of Children (3 + 0)

This course examines the socialization of children using a multi-disciplinary approach, e.g., anthropology, psychology, sociology, biology, and education. Emphasis is on the study of human attachment, modeling and social learning theory. From this base the student analyzes the effect that cultural and socialization patterns have on the family and the individual's development.

(General Studies–Level II, Social Sciences, Multicultural)

ECE 4370-3 Developmentally Appropriate Practice II: The Integrated Curriculum and Technology (3 + 0)

Prerequisites: ECE 2340, ECE 2350, ECE 3150, ECE 3160, RDG 3120

Corequisite: ECE 4380

Students learn how to organize, schedule, sequence, and integrate available resources and technology in order to implement developmentally-appropriate early childhood programs responsive to children's diverse needs and state and national standards. Content areas including planning, classroom organization and management, curriculum, technology, securing and implementing resources to achieve child and program outcomes, and practices of effective developmentally appropriate teaching techniques. This course is accompanied by ECE 4380, which provides the field-based setting for the performance tasks.

ECE 4380-1 Developmentally Appropriate Practice II: Field Experience (0 + 4)

Prerequisites: ECE 2340, ECE 2350, ECE 3150, ECE 3160, RDG 3120

Corequisites: ECE 4370

This field experience provides 60 hours of guided participation and teaching in a preprimary school or center to prepare students to be responsible for 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. A weekly pre-and post conference is held to reflect or adjust practice or approaches.

ECE 4390-6,12 Student Teaching and Seminar: Early Childhood (Preschool through Third Grade) (1 + 21.4 + 42.7)

Prerequisites: completion of all requirements of the major, Early Childhood Licensure Program and General Studies. Initial sign-off on the program requirements (e.g., teacher work sample/portfolio) by the education advisor is required.

This course requires student teaching assignments in an accredited public or private school as follows: one assignment in either Pre-K or K grade levels for 8 weeks and one assignment in either first, second, or third grade levels for 8 weeks for a total of 16 weeks. Both student teaching experiences require increasing responsibility for the teaching, supervision, and direction of a group of learners. Teacher candidates are required to complete a teacher work sample documenting impact on student learning and attend 15 hours of seminars. College supervisors provide regularly scheduled observations, seminars, and conferences which support work sample development and standards-based proficiency. Upon completion of this course, teacher candidates must be minimally rated as "proficient" in all performance-based standards for Colorado teachers to receive MSCD recommendation for licensure. (Senior Experience)

ECONOMICS

ECO 2010-3 Principles of Economics—Macro (3 + 0)

Prerequisites: either ENG 1010 or the Level I Communications course, and satisfaction of the Level I Mathematics requirement

An introduction to the principles of economics emphasizing the economy as a whole. Topics include: methods used in economics; gains from exchange and international trade, supply and demand–market outcomes and the impact of government interventions; measurement and determinants of macroeconomic performance–the national income and product, inflation, unemployment, and international balance of payments; business cycles (economic fluctuations)

and economic growth; demand side and supply side fiscal policy; banking, central banking, and monetary policy; preliminary international financial markets and open economy macro policy. (General Studies—Level II, Social Sciences)

ECO 2020-3 Principles of Economics—Micro (3 + 0)

Prerequisites: either ENG 1010 or the Level I Communications course, and satisfaction of the Level I Mathematics requirement

An introduction to the principles of economics with an emphasis on individual economic units. Topics include: supply and demand—market outcomes and the impact of government interventions; consumer choice; production theory and economic costs, the theory of the firm; competition and monopoly; resource markets and factor prices; and the role of government in a market economy—the legal framework and property rights, economic efficiency and competition policy, externalities and environmental protection, provision of public goods, and distribution of income and wealth. (General Studies—Level II, Social Sciences)

ECO 3010-3 Intermediate Microeconomic Theory (3 + 0)

Prerequisites: ECO 2020 and either MTH 1320 or MTH 1410

This course analyzes production, price, and distribution theory within a microeconomic framework. Studies include value and distribution theories under conditions of varying market structures. Topics will also include consumer theory; competitive, oligopoly, and monopoly pricing and output behavior as well as pricing of factors of production and welfare theory.

ECO 3020-3 Intermediate Macroeconomic Theory (3 + 0)

Prerequisites: ECO 2010

The course is 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.

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 or ECO 2020) and (MTH 1320 or MTH 1410 or CMS 2300) or permission of instructor

This course applies 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

This course examines historical trends in American economic organizations and institutions and their development from colonial times to the 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 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 2020

This course applies 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 which have significant economic consequences, both for the firm and the society at large.

ECO 3550-3 Global Economics and International Trade (3 + 0)

Prerequisites: ECO 2010 or ECO 2020

The course looks at the fundamental economic concepts needed for understanding international economic relationships. Topics addressed 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 4300-3 Public Finance (3 + 0)

Prerequisites: ECO 2020

This course analyzes the effects of taxation, government expenditures, fiscal policy, and public debt on the resource allocation and income distribution of society. Topics included in the course are 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 2020

The course exams the structure, conduct, and performance of American and foreign 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 Macroeconomics (3 + 0)

Prerequisites: ECO 3550 or ECO 3020

The course will use general equilibrium analysis to provide the foundation 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)

Prerequisite: ECO 2010 and (ECO 3150 or CMS 2300)

The course examines 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.

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 Macroeconomics (3 + 0)

Prerequisite: ECO 3020 or ECO 3100

The course analyzes 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, the examination of portfolio balance models, and international models.

ECO 4700-3 Law and Economics (3 + 0)

Prerequisites: 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 economic analysis of property, contract, and tort law, and the effect of legal analysis on economic and political institutions.

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

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)

Prerequisites: upper-division standing or permission of instructor and a minimum of four courses completed in major

Corequisite: must be taken concurrently with EDS 3120

Course includes an analytical assessment of teaching/learning processes with special emphasis on multicultural urban secondary schools. It addresses issues of human relations and classroom management to meet individual student needs in diverse contexts. Special emphasis will be placed on the role that the teacher as decision-maker must play in urban schools to meet the educational needs of learners from multicultural and diverse backgrounds. The course requires concurrent enrollment in EDS 3120, an 80-hour field experience and seminar in which students apply content and general education methods to instruction in actual classroom settings. (Multicultural and General Studies–Level II, Social Sciences)

EDS 3120-2 Field Experiences in Multicultural Urban Secondary Schools (1 + 5.33)

Prerequisites: upper-division standing or permission of instructor and a minimum of four courses completed in major

Corequisite: must be taken concurrently with EDS 3110 except for Special Education licensure students

This course provides the teacher candidate with an opportunity to apply theory to practice to make appropriate decisions in multicultural urban secondary schools. During this 80-hour field placement, teacher candidates learn about learners, schools, and their communities. They complete projects, performance tasks, and presentations demonstrating developing proficiency toward Performance Based Standards for Colorado Teachers. Weekly seminars address the decisions teachers make to individualize instruction for students' diverse educational needs. Teacher candidates reflect upon educational issues and professional growth with peers and instructor during a one-hour weekly session.

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 requirements

This course provides an emphasis on making appropriate decisions to meet the developmental needs of diverse children, with special focus on children in middle and high school. 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 Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School (3 + 0)

Prerequisites: EDS 3110, EDS 3120; EDS 3200

Pre or Corequisite: RDG 3280 and EDS 3200

Corequisite: EDS 3220 or EDS 3222 for mathematics teacher candidates. Methods course in the content major is recommended

Teacher candidates convert content, theory and conceptual aspects of academic and professional teacher education into standards-based instruction in simulated classroom assignments, assessments, and classroom management plans. Students plan and micro-teach lessons integrating Colorado's Model Content Standards in their endorsement areas, and they collaborate to develop interdisciplinary lessons that link their own content area standards to model content standards in reading, mathematics, and other areas. Students design a variety of models of instruction and approaches to classroom management to support students' growth toward Performance Based Standards for Colorado Teachers. Students learn to adjust instruction to meet the needs of diverse groups of learners and infuse technology to support learning. The course requires concurrent enrollment in EDS 3220, (EDS 3222 for Mathematics teacher candidates) an 80-hour field experience and seminar in which they apply content and general education methods to instruction in actual classroom settings.

EDS 3220-2 Field Experience in Standards-Based Teaching, Assessment, and Management in the Secondary School (1 + 5.33)

Prerequisites: EDS 3110 and EDS 3120

Pre or Corequisite: RDG 3280 and EDS 3200 and methods in the major

This course integrates the content, theory, and conceptual aspects of academic and professional teacher education in an 80-hour standards-based field experience in a secondary school. The field experience is arranged collaboratively by education and content methods faculty to provide students opportunities in school settings and content classrooms to demonstrate their developing teaching competency. This course develops students' professional and pedagogical skills and extends their opportunities to implement and assess content specific lessons, as well as integrated

lessons that promote secondary student achievement in reading, math, and technology. Students apply the principles of teaching and classroom management to make appropriate decisions for diverse groups of learners and to adjust approaches for secondary students with special needs. A weekly seminar is held to reflect on teaching and resulting student learning and to guide development of a mini teacher work sample, school service, action research, and professional growth.

EDS 4290-6,12 Student Teaching and Seminar: Secondary 7–12 (1 + 40)

Prerequisites: completion of all requirements of the teaching major and the Secondary Education Program; initial sign-off on program requirements (e.g., teacher work sample/portfolio) by faculty advisor

This course is a supervised, full-time, 16-week student teaching experience in an accredited public or private secondary school, providing increasing responsibility for the instruction, assessment, and supervision of an identified group of learners, 7–12 grade levels. Regularly scheduled observations and 15 hours of seminars conducted by an appointed college supervisor are part of the student teaching requirement. Teacher candidates must complete a teacher work sample and be rated as proficient in all Performance-Based Standards for Colorado Teachers to receive MSCD recommendation for teacher licensure. (Senior Experience)

Students enrolled for 12 credits spend 16 weeks full-time in a single placement. Only students needing two student teaching placements and seeking K-12 special education, bilingual or second endorsement enroll for EDS 4290 for 6 credits and spend 8 weeks full-time in the EDS 4290 placement.

EDS 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.

Educational Technology

EDT 2100-2 Fundamentals of Instructional Technologies (Hybrid only)

Prerequisite: Literacy and software application skills equivalent to CMS/CSS 1010 or 1080 (as evidenced by previous coursework in high school or college, work, personal experience, or permission of instructor)

Students enrolled in this course will learn the concepts and terminologies associated with the use of stand-alone computers in learning environments. Participants will be introduced to Macintosh and Windows hardware and software, operating systems, and common configurations and typical integrations in K-12 educational and instructional training venues. In order to facilitate interaction with professional computer technicians and systems administrators, students will gain knowledge in current vocabulary, concepts, and structures. Students will learn to apply critical analysis to situations and scenarios which hamper the implementation of instructional technologies in learning environments. This course will also explore rules, trends, issues, and future developments in the utilization of instructional technologies in learning environments.

EDT 2200-2 Fundamentals of Networked Learning Environments (Hybrid only)

Prerequisite: EDT 2100 or permission of instructor

Students enrolled in this course will focus on the concepts and terminologies of multi-platform (Macintosh and Windows) networked learning environments for the purpose of instruction in K-12 educational and instructional training settings. Participants will learn networking concepts,

terminology, vocabulary, and structures which will enable communication among teaching and technical professionals. Students will learn to apply critical thinking to situations and scenarios which hamper the implementation and utilization of networks in learning environments. Students will be exposed to copyright law and fair use guidelines including the implementation and enforcement of Acceptable Use Policies (AUPs). This course will also explore legal and ethical usage of networks, including accessibility issues with adaptive software.

EDT 2890-2-3 Introduction to Adaptive Technology (1 + 2-4)

Restriction: The class will consist of 15 lecture hours and 30 supervised lab hours. Students registering for the 3-credit class will be expected to complete an additional 30 independent lab hours for a total of 60 lab hours.

Prerequisite: Literacy and software application skills equivalent to CMS/CSS 1010 and 1080 (as evidenced by previous course work in high school or college, work, personal experience, or permission of instructor)

This course is designed to give students an overview of currently available adaptations that permit people with various disabilities access to computer technology and how it can be used to support teaching and learning. Participants will have an increased awareness and understanding of the challenges presented by various disabilities, as well as an increased awareness of the range of adaptations available, including screen text enlargers, screen-reading systems, alternative keyboards, typing enhancers, alternative entry methods, voice recognition systems, Braille, and scanning and editing techniques to aid the disabled. Students choosing the 3 credit hour option will complete an additional project requiring a minimum of 30 hours to complete. The project requires consultation with and formal approval from the instructor.

EDT 3010-3 Instructional Delivery for Interactive Learning Environments (Hybrid only)

Prerequisites: Literacy and software application skills equivalent to CMS/CSS 1010 and CMS/CSS 1080 (as evidenced by previous coursework in high school or college, work, personal experience, or permission of instructor)

In this course, students will focus on advanced concepts related to the design of instructional material. Participants will explore a variety of instructional design models that apply to diverse learning environments and human performance tasks. Students will learn and apply fundamental visual design concepts and procedures to enable the design of effective instructional materials. They will also learn and apply procedures and processes for evaluating instructional materials. This course is a mix of theory and practice/development. Participants will also critically examine the role of visual design as it applies to visual media created for instructional purposes. This process will include examining the role of visual design and instructional materials evaluation, developmental considerations and pedagogical considerations, cultural impacts and accessibility.

EDT 3610-2-3 Applications of Educational Technology (1 + 2-4)

Prerequisite: literacy and software application skills equivalent to CMS/CSS 1010 and 1080 or as evidenced by previous course work in high school or college or from work or personal experience

Corequisite: concurrent enrollment in any field experience course is highly recommended

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 P-12 education. Teacher candidates become proficient in beginning, intermediate or advanced skills, and specialized content area/grade level applications. They select, operate, 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 2 credits (minimum required to fulfill elementary and secondary program requirement in technology) or 3 credits (to provide advanced or specialized technology in teaching competencies). All students meet for 15 lecture hours and 15 supervised lab hours. Additional independent lab hours are expected from all students—15 for 2 credits and 45 for 3 credits. Teacher candidates select 2 or 3 credit hours based on their particular program requirements and their individual goals for growth in instructional technology.

EDT 3850-3 Fiscal Resources for Learning Environments (Hybrid only)

Prerequisite: Literacy and software application skills equivalent to CMS/CSS 1010 or 1080 (as evidenced by previous coursework in high school or college, work, personal experience, or permission of instructor)

In this course, students will work collaboratively to write funding proposals for a current request for proposal (RFP). Participants will learn how to write a persuasive narrative, supported by a strong needs analysis, plan for implementation, budget, and evaluation. Special attention will be given to formative and summative evaluations, focusing on evaluation of implementation as well as impact of the proposed project. At the end of the semester, students will submit their proposals to funding sources.

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. Credit will be granted for only one prefix: EDU, MDL or SPE.

EDU 3100-4 Social Foundations and Multicultural Education (4 + 0)

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 observe 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 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 (3.5 + 1)

Prerequisite: completion of Level I General Studies or permission of instructor

This introductory course in bilingual and multicultural education emphasizes the linguistically

and culturally diverse learner. It acquaints the student with historical perspectives, philosophical frameworks, legal implications, subject matter methodologies, and current issues that affect these educational programs. The course includes 15 hours of observation and/or interaction in a bilingual classroom.

EDU 3640-3 Basic Techniques of Instruction, Assessment and Management (3 + 0)

Prerequisites: EDU 3100, 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 in EDU 3650, a 45-hour field experience, taken concurrently.

EDU 3650-1 Elementary Instruction, Assessment and Management Field Experience (0 + 3)

Prerequisite: EDU 3100, PSY 1800, SED 3600

Corequisite: EDU 3640

This field experience 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 4070-3 Designing and Implementing Programs for Adult Learners (3 + 0)

Prerequisites: 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 4100-3 Integrated Methods of Teaching Language Arts and the Social Studies: K–6 (3 + 0)

Prerequisites: PSY 1800, ENG 2460, RDG 3110, EDU 3640

Corequisite: EDU 4105, RDG 4000

This course overviews the integrated methods, materials, and curricula currently in use in elementary language arts and social studies education. It will emphasize decision-making skills to foster the integration of diverse literacy skills in all academic areas. Social studies concepts and skills, as the integrating core, will be explored within the framework of age appropriate context and methods. Students will incorporate state and national standards, use technology and develop appropriate assessment strategies to evaluate instruction and pupil learning. Students must take EDU 4105, a 60-hour field experience and RDG 4000, which shares this field experience, concurrently.

EDU 4105-1 Integrated Language Arts and Social Studies Field Experience: K–6 (0 + 4.5)

Prerequisites: PSY 1800, RDG 3110, EDU 3640

Corequisite: EDU 4100, RDG 4000

This course is a field experience taken in conjunction with EDU 4100 and RDG 4000. The student will spend 4.5 hours per week practicing making instructional, assessment, and management decisions in reading, language arts, and social studies in the diverse contexts of a public school classroom.

EDU 4120-3 Integrated Methods of Teaching Science, Health and Mathematics: K–6 (3 + 0)

Prerequisites: RDG 3110, EDU 3640, PSY 1800, MTH 2620, 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, including the appropriate use of technology and development of appropriate strategies to support effective instruction. Students must take EDU 4125, a 45-hour field experience, concurrently.

EDU 4125-1 Integrated Science, Health and Mathematics Field Experience: K–6 (0 + 3)

Prerequisites: EDU 3640, PSY 1800, SCI 2620, MTH 2620, RDG 3110

Corequisite: EDU 4120

This course is a field experience taken in conjunction with EDU 4120. The student will spend three hours per week practicing making instructional, assessment, and management decisions in mathematics, science, and health in the diverse contexts of a public school classroom.

EDU 4190-6,12 Student Teaching and Seminar: Elementary K–6 (1 + 40)

Prerequisites: successful completion of all requirements of the major, minor, elementary licensure program and General Studies content courses; successful completion of Gateway requirements for each level (I-IV) of the elementary licensure program, including initial evaluation and sign-off of the program requirement (e.g., teacher work sample/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 (grades K-6). Fifteen hours of seminar is part of the field experience requirement. To pass this course, teacher-candidates must be minimally rated as proficient in all Performance-Based Standards for Colorado Teachers to receive MSCD recommendation for teacher licensure. Each student teacher is required to present a completed teacher work sample 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 4510-4 Development of Methods and Materials for Second Language/Bilingual/Bicultural Learning (3.5 + 1)

Prerequisites: EDU 3510 and satisfactory proficiency in Spanish reading, writing, listening, and speaking as determined by written and oral exams administered by MSCD Spanish speaking faculty

This course is designed to help students identify appropriate integrated bilingual instructional materials aligned to Colorado model content standards in the areas of reading and writing, mathematics, science, social studies, health, and fine arts. It emphasizes planning, implementing, and evaluating integrated curriculum for the linguistically and culturally diverse student with alternatives in approaches and methodology. The course includes 15 hours of field experience in a bilingual classroom where students apply course concepts in real school settings.

EDU 4520-4 Field Experience in Bilingual/Bicultural Education (1 + 6)

Prerequisites: EDU 4510 and satisfactory proficiency in Spanish reading, writing, listening, and speaking as determined by written and oral exams administered by MSCD Spanish-speaking

faculty

This course considers bilingual/bicultural techniques and their development and implementation in a bilingual/bicultural classroom. It requires 90 hours of field experience in a bilingual school or community setting and a weekly hour seminar to reflect on practice.

EDU 4590-6 Bilingual Student Teaching and Seminar (1 + 21.4)

Prerequisites: successful completion of all requirements of the major, minor, bilingual endorsement, teacher licensure program, and General Studies; satisfaction of all student teaching application requirements by the required deadline; high proficiency in Spanish reading, writing, listening, and speaking as determined by written and oral exams administered by MSCD Spanish speaking faculty

Corequisite: In addition to taking EDU 4590, students must complete eight weeks of student teaching (ECE 4390, EDS 4290, EDU 4190) in an elementary, secondary or early childhood licensure program working with a cooperating teacher in their initial endorsement area.

This course is a supervised, full-time, eight week student teaching experience in an accredited public or private school bilingual program. The experience provides increasing responsibility for the teaching, supervision, and direction of an identified group of bilingual learners K-12.

Students must attend weekly seminars conducted by college supervisors of student teaching. For this course, students work with a bilingual teacher and demonstrate proficiency in all phases of bilingual classroom instruction. Teacher candidates are required to complete components of the teacher work sample and demonstrate proficiency in Performance Based Standards for Colorado Teachers. Proficiency required for recommendation for bilingual endorsement includes ability to impact bilingual students' academic success and to develop their English language proficiency.

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 4700-1 Substitute Teacher Workshop (1 + 0)

Prerequisite: 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 1001-3 Electronics: An Introduction (2 + 2)

Prerequisite: High school algebra

A survey of Electrical Engineering Technology, emphasizing hands-on application of theory, introduces: circuits, transistor amplifiers, computer circuits, and technology related careers. Students may assemble an electronics kit. (General Studies–Level II, Natural Science)

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 1300-3 Computer Nuts and Bolts (2 + 2)

This is a course to introduce students to the installation of computer hardware and software. An A+ certification book is used for the text, however this is not an A+ certification class.

EET 2000-3 Electric Circuits and Machines (2 + 2)

Prerequisites: MTH 1120 or MTH 1400, PHY 2020 or PHY 2331, with grades of "C" or better

This course introduces electric circuits for non-EET majors. It covers DC and AC circuits, generators, motors, transformers, elementary electronic devices, and circuits.

EET 2140-3 Electronics I (2 + 2)

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 Circuits I (3 + 2)

Prerequisites: High school algebra or equivalent and appropriate score on the mathematics pre-assessment placement test

This course covers the analysis and design of logic circuits using Boolean algebra and Karnaugh maps. Adders, comparators, decoders, encoders, multiplexers and other logic circuits are also studied. Flip-flops, memories, analog to digital (ADC) and digital to analog converters (DAC) are used to design simple digital circuits. Computer architecture is introduced.

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 2800-3 Cooperative Education (1 + 6)

Prerequisite: formal admission to Cooperative Education Program and permission of department chair

A seminar course allowing working students to share work experience and to report on particular projects.

EET 3010-4 Industrial Electronics (3 + 2)

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 EET 2150, with grades of “C” or better

This course covers the design of 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 with grades of “C” or better

This course is an advanced analog electronics course with emphasis on the operational amplifier. Topics include: power supplies, active filters, amplifiers, nonlinear circuits, and computer 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)

Prerequisites: EET 2310, and one high-level computer language (BASIC, Visual BASIC, C, C++, Java, etc.)

This course covers microprocessor hardware and software. The following topics are discussed: microprocessor architecture, microprocessor instruction set, assembly language programming, input/output techniques, and interrupt request handling.

EET 3410-3 Electric Machines (2 + 2)

Prerequisite: EET 2150 or EET 3010 with a grade of “C” or better

This course studies motors and generators and their applications.

EET 3420-3 Electric Power Distribution (3 + 0)

Prerequisite: EET 2150 or EET 3010 with a grade of “C” or better

This course studies 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 with grades of “C” or better

This course 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 with a grade of “C” or better

This course is an introduction to communication systems. Topics include: 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 with grades of “C” or better

This course covers mathematical concepts of static and dynamic electromagnetic fields. Topics include: planewave propagation in lossless and lossy media, waveguide propagation, and radiation principles.

EET 3670-3 Measurements for Communications Systems (1 + 4)

Prerequisites: EET 2340 and EET 3620

Students learn to perform measurements on communication 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, with grades of “C” or better

Fiber optics is studied, including ray propagation, emitters, detectors, connectorization and systems, FDDI and SONET.

EET 3710-3 Control Systems Analysis (3 + 0)

Prerequisite: EET 3110 with a grade of “C” or better

This course analyzes classical linear continuous-time control systems. Topics include: 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 with grades of “C” or better

This laboratory course uses the classical approach to the analysis and design of control systems.

EET 3730-2 Process Control Systems (2 + 0)

Prerequisite: high school algebra or equivalent and appropriate score on the mathematics pre-assessment placement test

This course introduces the applications of PID controllers in the process control industry.

EET 3740-2 Programmable Logic Controllers (2 + 0)

Prerequisite: high school algebra or equivalent and appropriate score on the mathematics pre-assessment placement test

This course covers the application of programmable logic controllers (PLC) and their programming, using ladder diagrams.

EET 3800-3 Cooperative Education (0 + 9)

Prerequisites: junior or senior 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, EET 2350 or CSS 2227, with grades of “C” or better

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 or 1200, PHY 2331 or 2020, with grades of “C” or better

This course is 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 or CSI 3400, EET 3360 or CSI 2400, with grades of “C” or better, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course 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)

Prerequisites: SPE 1010 and EET 4100 with grades of “C” or better, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course is 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, with grades of “C” or better

This course introduces digital filters as applied in digital signal processing and sampled data control systems.

EET 4330-3 Data Communications (2 + 2)

Prerequisite: EET 2310 with a grade of “C” or better

This course 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 and EET 3360 with grades of “C” or better

This course covers interfacing techniques between computers, peripherals, and other digital circuits.

EET 4370-3 Microcontrollers (2 + 2)

Prerequisite: EET 3360 with a grade of “C” or better

This course teaches microcontroller design. Topics include: programming, monitor functions, hardware configurations, timing, analog to digital conversion, parallel I/O, and serial I/O.

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)

Prerequisite: EET 3620 with a grade of “C” or better

This course 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 with a grade of “C” or better

This course 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 with a grade of “C” or better

This course 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 with a grade of “C” or better

This course covers designing 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, with grades of “C” or better

This course covers analysis and design of robots. Includes robot kinematics, inverse kinematics, kinetics, sensors, actuators, and industrial applications.

ENGLISH

ENG 1010-3 Freshman Composition: The Essay (3 + 0)

Prerequisite: a score of 86 or higher on the Accuplacer sentence skills exam or a “C” or better in CCD’s ENG 090 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 ability to generate, organize, and present writing for the appropriate audience. (General Studies—Level I, Composition) (Guaranteed Transfer–CO1)

ENG 1020-3 Freshman Composition: Analysis, Research, and Documentation (3 + 0)

Prerequisite: ENG 1010 or its equivalent

ENG 1020 is a course in 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. Many sections of ENG 1020 include hands-on instruction on the use of the computer in research and writing in a computer lab. (General Studies—Level I, Composition) (Guaranteed Transfer–CO2)

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)

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)

Pre or Corequisite: 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

This course is a study of literature in translation, written before 1600 by men and women from various times and cultures.

ENG 2120-3 World Literature: 1600 to Present (3 + 0)

Prerequisite: ENG 2100 or permission of instructor

This course is a study of literature, much of it in translation, written after 1600 by men and women of various times and cultures.

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)

Prerequisite: 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)

Pre or Corequisite: ENG 2100 or permission of instructor

This course surveys the literature of the British Isles from the Anglo-Saxon period to 1785, including poetry, drama, fiction, and essays.

ENG 2330-3 British Literature: 1785 to Present (3 + 0)

Prerequisite: ENG 2100 or permission of instructor

This course surveys the literature of the British Isles since 1785, including poetry, drama, fiction, and essays.

ENG 2410-3

(CHS 2010) Survey of Chicana/o Literature (3 + 0)

Prerequisite: CHS 1000 or permission of instructor

This course reviews major literary genres associated with Chicana and Chicano creative expression from the 1800s to the present including poetry, drama, and the novel. Credit will be granted for only one prefix: CHS or ENG. (General Studies–Level II, Arts and Letters)

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 2460-3 Introduction to Children's Literature (3 + 0)

Prerequisite: satisfaction of Level I General Studies requirements

This course provides an introduction to children's literature, that is, to writing intended for an audience ranging from pre-readers to early adolescents. The course will survey the genres and the history of such literature, including various oral traditions and current issues. Students will develop their abilities to understand, analyze, appreciate, and critique children's literature.

(General Studies–Level II, Arts and Letters)

ENG 2500-3 Art and Craft of Writing (3 + 0)

Prerequisite: ENG 1020 or permission of instructor

This course 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)

Prerequisite: ENG 1020 or permission of instructor

This introductory course employs lectures, group discussions, and exercises in writing fiction, poetry, and drama.

ENG 2850-3

(ART 2850, SPE 2850) Introduction to Cinema Studies (2 + 2)

Prerequisite: completion of Level I General Studies requirements or permission of instructor

This course will introduce the study of motion pictures traditionally projected from film, that is,

of cinema. Along with historical and theoretical concepts, students will learn a vocabulary of analysis that will enable them to articulate critical responses to cinema. During the lab hours students will view narrative films that illustrate various concepts being studied. Students will write analytical critiques of particular films. Credit will be granted for this course with only one prefix, that is, once only as English, Speech or Art. (General Studies—Level II, Arts and Letters)

ENG 3020-3 History of the English Language (3 + 0)

Prerequisite: 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

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 Chaucer, Shakespeare, Milton (3 + 0)

Prerequisite: ENG 2100 or permission of instructor

This course is a study of major works by Geoffrey Chaucer, William Shakespeare, and John

Milton designed to give the student an understanding of their contributions to English literature.

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.

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 Development of Modern European Literature (3 + 0)

Prerequisite: ENG 2100 or permission of instructor

This course studies major works by European writers from 1637 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: ENG 2100 or permission of instructor

This course is a critical study of themes and symbols that commonly appear in mythic texts of cultures worldwide, from ancient to modern, with consideration of relevant literary theory and criticism.

ENG 3461-3 Children's Literature: Theory and Practice (3 + 0)

Prerequisite: ENG 2100

This course studies all levels and types of children's literature with attention to literary theory and instructional practices. It focuses on responses to and analyses of children's literature in print and non-print forms. Issues discussed will include selection, culture, gender, and diversity.

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

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-ENG 352B, Poetry-ENG 352A, or Drama-ENG 352C) (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 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

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)

Prerequisites: 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. Coursework may incorporate lectures, selected textual studies, group discussion, workshops, and supervised 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)

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. Credit will be granted for only one prefix: ENG or CHS.

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 Writing concentration of the English major or minor, or permission of instructor

This capstone course in the Writing concentration provides instruction for advanced projects in writing fiction, poetry, drama, or nonfiction. (Senior Experience)

ENG 4600-3 Teaching Literature and Communication, 7–12 (3 + 0)

Prerequisites: senior standing and completion of ENG 2100, ENG 2500, ENG 3020, and ENG 3470 or equivalent courses as determined by a Department of English advisor, or permission of instructor

This course is intended for students seeking a degree in English with a concentration in Secondary Education through MSCD or for students seeking licensure through MSCD to teach secondary English. Students will learn theories and techniques for teaching literature, understanding and responding to texts, and integrating spoken and written communication. The course will also address language diversity, cross-cultural communication, and the oral tradition in literature.

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 4620-3 Teaching Composition, 7–12 (3 + 0)

Prerequisites: senior standing and completion of ENG 2100, ENG 2500, ENG 3510, or equivalent courses as determined by a Department of English advisor, or permission of instructor

This course is intended for students seeking a degree in English with a concentration in Secondary Education through MSCD or for students seeking licensure through MSCD to teach secondary English. 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 4640-3 Teaching English, 7–12 (3 + 0)

Prerequisites: completion of at least 36 hours of courses required for Secondary School

Teaching-English concentration or equivalent courses as determined by a Department of English advisor for those students already possessing a degree in English; completion of at least 15 semester hours of professional education courses for students seeking licensure through MSCD; and permission of instructor.

This course is intended for students seeking a degree in English with a concentration in Secondary Education through MSCD or for students seeking licensure through MSCD's Teacher Education Program to teach secondary English. Degree-seeking students who are not seeking licensure prior to graduation should take this course during their last semester of coursework. Students who are seeking licensure should take this course during the semester prior to their student teaching. In this 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. Students will apply concepts learned in ENG 4640 to field placements in secondary school settings in collaboration with EDS 3220. (Senior Experience)

ENG 4650-3 Teaching Composition in Elementary School K–6 (3 + 0)

Prerequisites: ENG 3510, junior or senior 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.

ENVIRONMENTAL SCIENCE

Please note: Some GEG and GEL courses will change to the prefixes ENV and GIS effective Spring 2003. For Summer and Fall 2002, the prefixes for these courses will remain GEG and GEL.

Changes effective Spring, 2003: GEG 1200=ENV 1200; GEG 1400=ENV 1400; GEG 2250=GIS 2250; GEG 3210=GIS 3210; GEG 3220=GIS 3220; GEG 3250=GIS 3250; GEG 3400=ENV 3400; GEG 3620=ENV 3620; GEG 4200=ENV 4200; GEG 4410=ENV 4410; GEG 4420=ENV 4420; GEG 4430=ENV 4430; GEG 4840=GIS 4840; GEG 4850=GIS 4850; GEG 4860=GIS 4860; GEG 4870=GIS 4870; GEG 4890=GIS 4890; GEG 4960=ENV 4960; GEL 1540=ENV 1540; GEL 1710=GIS 1710; GEL 3540=ENV 3540; GEL 4000=ENV 4000; GEL 4010=ENV 4010; GEL 4960=ENV 4970

ENV 1200-3 Introduction to Environmental Science (3 + 0)

Prerequisite: 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)

ENV 1400-3 World Resources (3 + 0)

Prerequisite: 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)

ENV 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 ENV 1540 and ENV 3540 for credit.

ENV 3400-3 Water Resources (3 + 0)

Prerequisites: ENV 1200 or ENV 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.

ENV 3540-2 Advanced Geologic and Environmental Hazards—Denver and Vicinity (2 + 0)

Prerequisite: nine hours of geography or geology or permission of instructor

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 ENV 1540 and ENV 3540 for credit.

ENV 3620-3 Population, Resources, and Land Use (3 + 0)

Prerequisites: GEG 1000 or GEG 1300, six hours in geography; ENV 1400 recommended

This course examines the distribution and density of the global population and the relationship of these patterns to world resources and development problems. Population shifts, including birth, death, migration, and doubling rates are analyzed. Data analysis and projections are covered.

ENV 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 3060 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.

ENV 4010-3 Environmental Hazards and Planning (3 + 0)

Prerequisites: ENV 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.

ENV 4200-3 Environmental Policy and Planning (3 + 0)

Prerequisites: ENV 1200 or ENV 1400 and junior or senior standing; GEG 3610 or ENV 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.

ENV 4410-3 Water Law (3 + 0)

Prerequisites: ENV 1200 or ENV 1400 or ENV 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.

ENV 4420-3 Wetlands (3 + 0)

Prerequisites: ENV 1200 or ENV 1400 or ENV 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.

ENV 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.

ENV 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, 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)

ENV 4970-3 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)

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 or senior 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 or senior 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)

Prerequisite: business major with junior or senior 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 or senior 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 or senior 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 or senior 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 3450-3 Retirement Planning and Employee Benefits (3 + 0)

Prerequisite: junior or senior 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 3600-3 Investments (3 + 0)

Prerequisites: FIN 3300 and junior or senior 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 or senior 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 or senior standing

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 or senior 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 4200-3 Financial Modeling with Spreadsheets (3 + 0)

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)

Prerequisites: 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 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 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. Proficiency in personal computer word processing and spreadsheet applications is necessary.

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 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.

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)

Prerequisite: 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 3050-3

(GER 3050, MDL 3050, SPA 3050) Cultural Crossroads: France, Germany, Spain (3 + 0)

Prerequisite: ENG 1020

This course gives students the cultural background necessary to understand and appreciate those spiritual and intellectual developments that have given today's three European nations (representing our language disciplines) their characteristics. Main topics include the Indo-European language family, the cultural and technological development of Germanic and Romance-speaking countries, the causes for the rise and fall of these countries throughout the 2000 years under consideration, the role of women in politics and the arts, the development of differing social etiquette, reasons for mass emigrations, and contributions of immigrants to their new countries, and the effect that the European Union has on the educational social welfare of its member nations. Students can get credit for only one prefix.

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)

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)

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.

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

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)

Prerequisites: 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 DESIGN

IND 1010-4

(ART 1300) 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. Credit will be granted for only one prefix: IND or ART.

IND 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.

IND 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.

IND 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.

IND 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, core making, cutting, forming and finishing.

IND 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.

IND 1470-3 Perspective Drawing (1 + 4)

Prerequisite: ART 1100 or IND 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.

IND 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 silkscreen.

IND 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.

IND 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.

IND 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.

IND 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.

IND 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.

IND 2450-3 Beginning Industrial Design (1 + 4)

Prerequisites: ART 1110, ART 1210, IND 1430, IND 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.

IND 2690-2 Alternate Energy and Transportation (2 + 0)

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.

IND 2810-3 Technology, Society and You (3 + 0)

Prerequisites: satisfaction of the Level I Mathematics requirement and either ENG 1010 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)

IND 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.

IND 3100-4 Advanced Plastics (2 + 4)

Prerequisite: IND 1130

An in-depth study, lecture and lab, of the materials, processes and procedures used in the plastics industries.

IND 3210-4 Advanced Metalworking (2 + 4)

Prerequisites: IND 1200 and IND 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.

IND 3330-3 Wood Furniture Design I (1 + 2)

Prerequisite: IND 1010

Combination lecture/laboratory course emphasizing historical aspects of production wood furniture construction and design. Based upon the mass production orientation of industrial design, the focus will be on furniture design styles from the Arts and Crafts era to present.

IND 3410-3 Computer Aided Drafting for Industry (1 + 4)

Prerequisite: IND 1430 or permission of instructor

This course is an introduction to the principles of Computer Aided Drafting (CAD) and an understanding of the 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.

IND 3450-3 Intermediate Industrial Design (1 + 4)

Prerequisite: IND 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.

IND 3480-3 Industrial Design Model Making (1 + 4)

Prerequisite: IND 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.

IND 3500-4 Advanced Graphic Arts (2 + 4)

Prerequisites: IND 1500 and IND 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.

IND 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.

IND 3660-3 Computer Aided Industrial Design (1 + 4)

Prerequisites: IND 2450 and IND 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.

IND 3770-3 Wood Furniture Design II (0 + 6)

Prerequisites: IND 1010 and IND 3330

A studio course employing projects to address aspects of furniture design such as form, color, texture, balance, structure, ergonomics, functionality, material technology, and manufacturability. Students are expected to develop a personal direction/aesthetic in design and construction of a mass producible wood furniture piece.

IND 3800-4 Industrial Safety and Production (2 + 4)

Prerequisites: IND 1010, IND 1130, IND 1200, and IND 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.

IND 3950-3 History of Industrial Product Design (3 + 0)

Prerequisites: IND 2450 and IND 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.

IND 4030-4 Advanced Wood Processes (2 + 4)

Prerequisite: IND 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.

IND 4090-3 Advanced Modelmaking Fabrication Techniques (1 + 4)

Prerequisite: IND 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.

IND 4200-4 Welding Technology (2 + 4)

Prerequisite: IND 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.

IND 4410-3 Computer Aided Drafting for Industry II (1 + 4)

Prerequisites: IND 1430 and IND 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.

IND 4450-3 Advanced Industrial Design I (1 + 4)

Prerequisite: IND 3450

This course is a continuation of IND 3450, extending industrial designing to corporate image, product packaging and display. Special emphasis is given to human factors in product design.

IND 4460-3 Advanced Industrial Design II (1 + 4)

Prerequisite: IND 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.

IND 4540-3 Advanced Design Concept Visualization (1 + 4)

Prerequisite: IND 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.

IND 4710-8 Trade and Technical Practicum (1 + 18)

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.

IND 4830-3 Organization and Administration of Industrial Arts (3 + 0)

Prerequisite: IND 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.

IND 4840-2 Emerging Technologies (2 + 0)

Prerequisites: senior standing and IND 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.

IND 4860-2 Research in Industrial Technology (2 + 0)

Prerequisites: senior standing; IND major

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 further develop problem-solving abilities. At the same time, the process enhances the student's knowledge and skills in a technical concentration.

IND 4870-1–5 Special Studies in Industrial Design (0 + 2–10)

Prerequisite: permission of instructor

A study and investigation of a selected topic in the field of industrial design. Student may repeat this course in alternate concentrations.

IND 4960-4 Professional Industrial Internship (1 + 18)

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 Major

The industrial internship is the culmination of training for the bachelor's degree in the Industrial Design major. 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)

ITALIAN

ITA 1010-5 Elementary Italian I (5 + 0)

This is a basic course in Italian, with emphasis primarily on pronunciation, speaking, and understanding, supplemented by grammar, reading, and writing. Attention will also focus on understanding the culture and customs of Italy.

ITA 1020-5 Elementary Italian II (5 + 0)

Prerequisite: ITA 1010 or equivalent

This course is the continuation of ITA 1010.

ITA 2010-3 Intermediate Italian I (3 + 0)

Prerequisite: ITA 1020 or equivalent

This course emphasizes oral proficiency and continues the sequence of ITA 1010 and ITA 1020. It presents a sampling of social, political, cultural, and literacy topics central to the understanding of Italy and the Italian people. Classes are taught mainly in Italian.

INDUSTRIAL AND TECHNICAL STUDIES

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 4810-3 Curriculum and Methods of Teaching Industrial Arts (2 + 3)

Prerequisite: IND 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.

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 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)

Prerequisite: 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 (2 + 2)

Prerequisite: ENG 1010

This course is required for students in the news/editorial and photojournalism concentrations. This course provides concentration in a lecture and laboratory setting on the development of the basic skills of reporting and newswriting, with stress on accuracy, completeness, clarity, speed, and fairness.

JRN 1110-3 Media Writing (2+2)

Prerequisite: ENG 1010 or permission of instructor

This course is required for students entering the public relations concentration or the public relations minor. It provides concentration in a lecture and laboratory setting on the development of the basic skills of reporting and writing for print, on-line and broadcast media. Students are required to cover events out-of-class.

JRN 1200-3 Beginning Editing (2 + 2)

Prerequisites: ENG 1010 and JRN 1100 or JRN 1110

This course provides an introduction to and intensive practice in the techniques of copy editing and headline and outline writing. Laboratory practice is provided.

JRN 1600-3 Survey of Photojournalism (3+0)

Students taking this class will get an overview of photojournalism, including its history and its impact on today's society. No photography experience is necessary. This course is not required for students in the journalism major with photojournalism concentration or the photojournalism minor.

JRN 1700-3 Survey of Public Relations (3+0)

This course is for students who are not in the journalism major with public relations concentration or public relations minor. The course will give students an overview of the roles

and functions of public relations, how to create audience-appropriate publications and documents, and how to create public relations campaigns to meet the needs of various publics.

JRN 2100-3 Intermediate Reporting (2 + 2)

Prerequisite: JRN 1100

This course is required for students in the news/editorial and photojournalism concentrations. This course allows students to refine the news gathering, interviewing and writing techniques that were learned in Beginning Reporting 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 2210-3 Beginning Layout and Design (2+2)

Prerequisite: JRN 1200

This course will provide students with basic knowledge of layout and design for newspapers, magazines and other mass media publications including the internet via such programs as QuarkXpress, Photoshop, Illustrator and Dreamweaver.

JRN 2600-3 Introduction to Photojournalism (2+2)

Prerequisite: JRN 1100

Corequisite: ART 1030 or equivalent beginning photography course

This course provides beginning-level instruction in photojournalism and techniques used in photography for the print media.

JRN 2700-3 Fundamentals of Public Relations (3 + 0)

Prerequisite: JRN 1110

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)

Prerequisite: 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 3200-3 Intermediate Editing (2+2)

Prerequisite: JRN 2200 or permission of instructor

This course provides advanced training in complex problems of copy editing, headline and caption writing, and news judgment plus work in page design and photo editing. Included is laboratory time to practice these skills.

JRN 3400-3 Feature Article Writing for Newspapers (3 + 0)

Prerequisite: JRN 1110 or JRN 2100

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 3600-3

(ART 3290) Photojournalism I (0 + 6)

Prerequisites: JRN 1100 and JRN 2600

This course provides an intermediate level of instruction in photojournalism and techniques used in photography for 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)

Prerequisite: 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 3981-3 Cooperative Education: News/Editorial (0+9)

Prerequisite: JRN 2100

This course gives students an internship experience on a newspaper, magazine or other publication where they are able to use the skills learned in the classroom in a supervised, professional setting.

JRN 3982-3 Cooperative Education: Photojournalism (0+9)

Prerequisite: JRN 3600

This course gives students an internship experience working as a photojournalist on a newspaper, magazine or other publication where they are able to use the skills learned in the classroom in a supervised, professional setting.

JRN 3983-3 Cooperative Education: Public Relations (0+9)

Prerequisite: JRN 3700

This course gives students an internship experience in public relations at an agency, corporation, non-profit organization or other entity where they are able to use the skills learned in the classroom in a supervised, professional setting.

JRN 4100-3 Investigative Reporting (3 + 0)

Prerequisites: JRN 2100

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 4210-3 Advanced Layout and Design (2 + 2)

Prerequisites: JRN 2200

This is an advanced course in layout and design of newspapers, magazines, newsletters, brochures, other professional publications, and web pages 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)

Prerequisite: 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 for News/Editorial concentration or the Broadcast Journalism concentration in Speech Communication, JRN 2700 for Public Relations concentration, JRN 2600 for Photojournalism concentration, satisfaction of all Level I and Level II General Studies course requirements, and senior standing.

This course is an intensive study of ethical, constitutional, and legal conflicts in the news media. (Senior Experience)

JRN 4600-3

(ART 4290) Photojournalism II (0 + 6)

Prerequisite: 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)

Prerequisite: 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.

JRN 4890-1-12 Social Documentary (0+2-24)

Prerequisite: JRN 3600 or JRN 2100

This course is offered to both writers and photographers who are expected to write and photograph independently or in teams to produce photo/essays for publication and portfolios. Emphasis will be placed upon stories that deal with cultural definitions that impact social change and the marriage between text and image.

LETTERS, ARTS AND SCIENCES

LAS 2810-3 Integrated Arts and Humanities I (2 + 2)

Prerequisite: ENG 1020

This interdisciplinary course, the first in a two-part sequence, is an integrated study of the visual arts, literature, music, drama, and philosophy of the ancient, medieval and Renaissance world. It explores humankind's cultural legacy and focuses thematically on the concerns of origin, self-knowledge, identity, world-view and society that many cultures, both Western and Eastern, share in common and also takes note of the unique contributions of different artists, writers, and thinkers to that process. Learning approaches will include lecture, discussion, projects, and attendance at a minimum of three cultural events.

LAS 2820-3 Integrated Arts and Humanities II (2 + 2)

Prerequisite: LAS 2810

As part of a two-semester sequence, this interdisciplinary course continues the integrated study of the arts and humanities in the world of the seventeenth through twentieth centuries, from the baroque and the age of reason to Romanticism and the modern period. It considers the effects of scientific discovery, industrialization, social change, and technology on their development and the interaction of diverse cultures on an international and global basis, and also takes into account the unique contributions of different artists, writers, and thinkers. Learning approaches will include lecture, discussion, projects, and attendance at a minimum of three cultural events.

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)

Pre or Corequisite: LES 1870 or permission 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 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)

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 3530-4 Techniques in Therapeutic Recreation (4 + 0)

Prerequisite: LES 3330

This course will examine tools, techniques, and procedures utilized in the delivery of therapeutic recreation services. Assessment, individual treatment plans/program plans, documentation, and community integration skills are discussed. A 10-hour opportunity for the application of content to practice is required.

LES 3830-3 Facilities and Area Design in Leisure Services (3 + 0)

Pre or Corequisite: 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

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)

Prerequisites: 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.

LES 4550-3 Management of Aquatic Resources (3 + 0)

Prerequisite: 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 or senior 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 or senior 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 Grant Writing in Human Performance, Sport and Leisure Services (3 + 0)

Prerequisite: ENG 1020

This course provides the HPSL student with an understanding of government, private, corporate, and local funding sources, resources to locate funding agencies, and an opportunity to write a grant proposal based on community needs in HPSL.

LES 4850-3 Advanced Administration in Leisure Services (3 + 0)

Pre or Corequisite: 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)

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 preassessment 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. Credit will be granted for only one prefix: MDL, EDU or SPE.

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. Credit will be granted for only one prefix: MDL or SPE. (General Studies–Level I, Communications)

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.

MDL 3050-3

(FRE 3050, GER 3050, SPA 3050) Cultural Crossroads: France, Germany, Spain (3 + 0)

Prerequisite: ENG 1020

This course gives students the cultural background necessary to understand and appreciate those spiritual and intellectual developments that have given today's three European nations (representing our language disciplines) their characteristics. Main topics include the Indo-European language family, the cultural and technological development of Germanic and Romance-speaking countries, the causes for the rise and fall of these countries throughout the 2000 years under consideration, the role of women in politics and the arts, the development of differing social etiquette, reasons for mass emigrations, and contributions of immigrants to their new countries, and the effect that the European Union has on the educational social welfare of its member nations. Students can get credit for only one prefix.

MDL 3800-3

(CHS 3801) Mexico: History, Life, and Culture (3 + 0)

Prerequisite: one year of Spanish or permission of instructor

This course is part of a study abroad program and provides an interdisciplinary understanding of Mexican civilization. It specifically deals with a social and historical approach to Mexican society and examines the traditions and institutions that shape the Mexican way of life. Credit will be granted for only one prefix: MDL or CHS.

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.

MET 1200-3

(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. Credit will be granted for only one prefix: MET or CET.

MET 1210-3

(CET 1210) Technical Drawing II (1 + 4)

Prerequisite: CET 1200 or MET 1200 with a grade of "C" or better, or permission of instructor
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. Credit will be granted for only one prefix: MET or CET.

MET 1310-3 Principles of Quality Assurance (3 + 0)

Prerequisite: intermediate algebra or equivalent with grade of "C" or better

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)

Pre or Corequisite: MTH 1410 with a grade of "C" or better, or permission of instructor

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. Credit will be granted for only one prefix: MET or CET.

MET 2200-3 Materials of Engineering (2 + 2)

Prerequisites: MTH 1110 or MTH 1400 with grade of "C" or better

Pre or Corequisite: CHE 1100 or CHE 1800 with grade of "C" or better

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 2310-3 Quality Assurance: Statistical Methods (3 + 0)

Prerequisites: MET 1310 and MTH 1210 with grades of “C” or better

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 and MET 2200 with grades of “C” or better

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, all with a grade of “C” or better

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 3050-3 Heat Power (2 + 2)

Prerequisites: MTH 1410 and PHY 2010 or PHY 2311 with grades of “C” or better

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 or MET 3130, and MET 2200 with grades of “C” or better

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, MET 1210 and MTH 1120, all with a grade of “C” or better

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 with grades of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: MET or CET.

MET 3120-2 Heat Transfer (2 + 0)

Prerequisites: PHY 2020 or PHY 2331 and MTH 1510 (or equivalent) with grades of “C” or better

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.

MET 3130-3

(CET 3130) Mechanics of Materials (3 + 0)

Prerequisites: CET 2150 or MET 2150 and MTH 2410 all with a grade of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: MET or CET.

MET 3135-1

(CET 3140) Mechanics of Materials–Laboratory (0 + 2)

Prerequisites: CET 2150 or MET 2150 and COM 2610 all with grades of “C” or better, or permission of instructor

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. Credit will be granted for only one prefix: MET or CET.

MET 3140-1 Heat Transfer Laboratory (0 + 2)

Prerequisite: MET 3120 with grade of “C” or better (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)

Prerequisite: CET 2150 or MET 2150 and MTH 2410 with grades of “C” or better, or permission of instructor

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 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. Credit will be granted for only one prefix: MET or CET.

MET 3180-3

(CET 3180) Fluid Mechanics I (3 + 0)

Prerequisite: CET 3160 or MET 3160 with a grade of “C” or better, or permission of instructor
This course covers physical properties of fluids, hydrostatics, kinematics, energy considerations, momentum, and incompressible flow in pipes. Compressible fluid flow will also be studied.
Credit will be granted for only one prefix: MET or CET.

MET 3190-3 Fluid Mechanics II (2 + 2)

Prerequisites: MET 3110 and MET 3180 with grades of “C” or better
This course covers the study of compressible internal flow with application to industrial, pneumatic systems. The study of isentropic, isothermal and flow of real gases is applied 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 3210-4 Introduction to Computer Aided Engineering (4 + 0)

Prerequisites: MTH 1120 or MTH 1400, either MET 1000 or CET 1100, all with a grade of “C” or better
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 with grades of “C” or better
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 with grades of “C” or better
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 with grades of “C” or better
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.

MET 3320-3 Instrumentation Laboratory (2 + 2)

Prerequisite: MET 3010 with a grade of “C” or better
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 with grades of “C” or better

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)

Prerequisite: MET 1210 and MET 1310 with grades of “C” or better

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 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 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 and EET 2000, all with grades of “C” or better, 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)

Prerequisite: MET 1210 and MET 3000 with grades of “C” or better

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, all with a grade of “C” or better, 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)

MET 4080-3 Computer Aided Manufacturing (2 + 2)

Prerequisites: MET 3000, MET 3100, MET 3210 or MTH 1510, all with grades of “C” or better. 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 MET 3210 or MTH 1510 with grades of “C” or better. 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 or PHY 2311, and PHY 2020 or PHY 2331, all with grades of “C” or better.

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 with a grade of “C” or better.

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)

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 governmental agencies that regulate employment, securities, trade and workplace decisions as well as the law of agency, contracts,

organizations and torts are analyzed. 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 or senior standing or permission of instructor. Completion of General Studies Level I composition and communications requirements

This course examines, analyzes and assesses managerial functions and processes as related to business and other organizations. It is designed to prepare students to meet the challenges of a highly dynamic and ever changing business environment by formulating individual competencies and skills, translating theory into practice, creating critical thinkers, and reflecting on the integration of new concepts and environmental changes into managerial practices.

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 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)

Prerequisite: 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 or senior 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.

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)

Prerequisite: 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)

Prerequisite: 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)

Prerequisite: 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.

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)

Prerequisite: 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)

Prerequisite: 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)

Prerequisite: 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 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 concepts used by managers to develop companies that can prosper in a competitive, global environment. Students are provided the opportunity to apply the concepts and theories of strategic management along with knowledge gained from business courses, general studies, and work experience to the operating and strategic challenges faced by domestic and global 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 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 4082-3-4 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 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, CMS 2010, SPE 1010

The various forms of managerial communication within a business environment are studied. Emphasis is placed on writing, listening, speaking, 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 applied for credit toward the marketing major. (General Studies—Level II, Social Sciences)

MKT 3000-3 Principles of Marketing (3 + 0)

Prerequisite: junior or senior 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 college statistics course) and junior or senior 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)

Prerequisites: MKT 3000 and junior or senior 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 or senior 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. It also discusses the targeting of advertising, types of media, media planning and buying, creative planning, and the basic creative formats for each medium. An evaluation of advertising and the production of efficient ads are discussed.

MKT 3120-3 Promotional Strategy (3 + 0)

Prerequisites: MKT 3110 and junior or senior standing

Following Advertising Management, MKT 3110, this course provides an in-depth understanding and analysis of promotional strategies and tactics necessary in the management of all 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 or senior 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 or senior 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)

Prerequisites: MKT 3000 and junior or senior standing

This course examines the environment of personal selling and the process 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 a case orientation.

MKT 3300-3 Marketing of Services (3 + 0)

Prerequisites: MKT 3000 and junior or senior standing

This course will introduce students to the problems and issues that are unique to marketing a service organization as well as marketing services. Topics include service strategy, listening to customers, complaint management, service guarantees, customer satisfaction, measuring return on quality, managing moment of truth, relationship marketing, and employee empowerment.

MKT 3310-3 Consumer Behavior (3 + 0)

Prerequisites: MKT 3000 and junior or senior standing

This course analyzes the underlying theories and complex variables influencing consumers and their purchase decision-making processes. The marketing strategy implications of consumer behavior concepts are studied.

MKT 3410-3 Marketing Logistics (3 + 0)

Prerequisites: MKT 3000 and junior or senior 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)

Prerequisite: junior or senior standing

This course is a study of how the principles of marketing are applied in the sports industry. The course examines the marketing of sports, teams, athletes, etc., as well as the use of sports to market products (e.g., sponsorship and promotional licensing).

MKT 3610-3 Business-to-Business Marketing (3 + 0)

Prerequisites: MKT 3000 and junior or senior standing

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 or senior 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, CMS 2010 or equivalent, and junior or senior standing

This course is designed to introduce students to the cutting edge technologies that are necessary to perform effectively as marketing professionals. The primary focus of this course is marketing uses of the worldwide network of computers known as the Internet including web site design and maintenance, marketing research, e-mail, and advertising. The course will also provide limited

coverage of other electronic technologies including fax-on-demand, CD-ROM, and database marketing.

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 3010, MKT 3310, and senior standing

This culminating course for all marketing majors 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.

MATHEMATICAL SCIENCES

Computer Science courses are listed under the prefixes CSI and CSS and are offered through the Department of Mathematical and Computer Sciences.

MTH 1080-3 Mathematical Modes of Thought (3 + 0)

Prerequisites: 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. All sections will integrate the use of a graphing calculator into the course. A specific calculator will be required. (General Studies—Level I, Mathematics) (Guaranteed Transfer—MA1)

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. A specific graphing calculator will be required.

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) (Guaranteed Transfer—MA1)

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)

Prerequisites: 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) (Guaranteed Transfer—MA1)

MTH 1320-3 Calculus for the Management and Social Sciences (3 + 0)

Prerequisites: 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)

Prerequisite: 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, 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 and appropriate score on the department’s Calculus Readiness Exam, 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 Integrated Mathematics I (3.6 + .8)

Prerequisites: one and one-half years of high school algebra or equivalent, and an appropriate score on the mathematics preassessment test or permission of instructor. Declaration of intent to be licensed for some aspect of K-12 teaching

This course, the first in the sequence of mathematics courses for prospective teachers, builds students' understanding of the mathematical concepts underlying a mathematics curriculum aligned with the Colorado Model Content Standards for Mathematics to the minimum level needed by teachers in grades K-12. As part of this course, students will assist in an Elementary Mathematics Lesson Study in a public elementary-school classroom. (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)

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.

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 problem 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 2620-4 Integrated Mathematics II (3.6 + .8)

Prerequisite: MTH 1610 or permission of instructor

This course, the second in a sequence of mathematics courses for prospective teachers, deepens and extends students' understanding of the mathematical concepts underlying a mathematics curriculum aligned with the Colorado Model Content Standards for Mathematics to the level needed by teachers of mathematics in grades K-5. As part of this course, students will direct an Elementary Mathematics Lesson Study in a public elementary-school classroom.

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

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 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 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)

Prerequisites: 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

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 or minor 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 3400-4 Chaos and Nonlinear Dynamics (4 + 0)

Prerequisites: MTH 1410 and MTH 2410 with a grade of “C” or better, or permission of instructor; and satisfaction of all Level I General Studies course requirements

This course is an introduction to dynamical systems from the extension of Newtonian physics to the development of chaos theory and nonlinear dynamics. It gives insight into the evolution of nonlinear dynamics from historical mathematical and applications viewpoints. It develops and applies chaos theory to physical systems. Algorithms for generating intricate fractal images and the mathematics behind the images are also developed. (General Studies–Level II, Arts and Letters)

MTH 3420-4 Differential Equations (4 + 0)

Prerequisite: MTH 2420 with a grade of “C” or better, or permission of instructor

This course includes a study of first, second, and higher order differential equations and systems giving solutions in closed form, by numerical approximations, and through Laplace Transforms. These techniques are applied to problems in the physical sciences and engineering. All sections will integrate the use of the software package Mathematica into the course.

MTH 3440-4 Partial Differential Equations (4 + 0)

Prerequisite: MTH 3420 with a grade of “C” or better, or permission of instructor

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. All sections will integrate the use of the software package Mathematica into the course.

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 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

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)

Prerequisite: 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 course work 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 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 1050, 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

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)

Prerequisites: 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)

Prerequisites: 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

This course, to be taken in the semester immediately prior to MTL 3630, approaches the mathematical concepts outlined in the Colorado Model Content Standards for Mathematics from an advanced perspective. The course 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 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 in the semester immediately prior to MTL 4690 (Student Teaching and Seminar: Secondary 7-12). 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 (0 + 5.3)

Prerequisite: MTL 3620 or permission of instructor

Corequisites: MTL 3630 or permission of instructor

Prospective teachers enrolled in this course will spend at least 80 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 public-school classrooms of diverse learners. Prospective teachers in this course will direct a Secondary Mathematics Lesson Study, a mini-teacher work sample.

MTL 4690-12 Student Teaching and Seminar: Secondary 7–12 (1 + 42.7)

Prerequisites: completion of all mathematics course work and all teacher education course work required for licensure; department approval of all GPA requirements; completion of Application for Student Teaching

This course is a 16-week, full-time 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 two Secondary Mathematics Lesson Studies (which, together, constitute the teacher work sample), and 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 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: ENV 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)

Prerequisite: 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 3410-2 Weather Analysis Techniques (1 + 2)

Prerequisite: MTR 3400

This is a course in interpretation, understanding, and analysis of weather data, focusing on conventional surface and upper-air data and use of these data in current weather diagnostics. Topics include traditional hand analysis of surface and upper-air weather maps, spatial and temporal cross-sections, thermodynamic diagrams, meso-analyses, and prognostic charts. These topics form the foundation for correct and efficient use of modern computer analysis. This is an essential course for operational and applied research meteorologists.

MTR 3420-3 Radar and Satellite Meteorology (3 + 0)

Prerequisites: 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)

Prerequisites: 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

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 4210-1 Forecasting Laboratory I (0 + 2)

Prerequisite: MTR 3410

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.

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)

Prerequisite: MTR 3410

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)

Prerequisite: minimum performance standard of the reading, writing, and quantitative freshman placement assessments

This course covers the elements and sources of music. Musical terminology is studied, discussed, and demonstrated. An historical understanding of the development of the most common musical genres of Western European art music is developed. The course is non-technical in nature and designed for students who are not music majors to develop competence in understanding music through guided listening. (General Studies—Level II, Arts and Letters) (Guaranteed Transfer—AH1)

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 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

This course is the study of the melodic, harmonic, rhythmic, textural, and formal elements of music through analysis and composition and the development of reading and hearing skills as they relate to these elements. It covers diatonic music based on the triad including tonic and dominant harmony, phrase structure and grouping, and melodic figuration and dissonance. Aural recognition of materials is emphasized.

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

This course is the continuation of MUS 1110. It includes the study of the melodic, harmonic, rhythmic, textural, and formal elements of music through analysis and composition and the development of reading and hearing skills as they relate to these elements. It covers predominant chords and other diatonic chords, seventh chords, harmonic sequences, and an introduction to tonicization and modulation. Aural recognition of materials is emphasized.

MUS 1140-1 Music Theory Lab II (0 + 2)

Prerequisites: MUS 1110, MUS 1120, MUS 161B

Corequisite: MUS 1130, MUS 162B

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.

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

This course covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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

This course is a continuation of MUS 1710. It covers individual instruction in voice, piano,

organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course may be repeated for credit in a different area of study.

MUS 2040-3

(ART 2040) An Integrated Approach to Art and Music (3 + 0)

Prerequisite: 24 undergraduate credit hours, including ENG 1010 and ENG 1020, or permission of instructor

This course enables students to develop awareness and knowledge of the major periods, styles, and landmark works in worldwide visual arts and music. Philosophical and aesthetic foundations of art, music, and the creative process will be explored to enhance this study. Basic elements of music and art will be identified and applied to the study of masterworks. The concepts presented in this integrated approach will be applied to develop artistic sensibility. Credit will be granted for only one prefix: MUS or ART. (General Studies–Level II, Arts and Letters)

MUS 2050-1 Music Lab for the Elementary Teacher (0 + 2)

Pre or Corequisite: ART 2040 or MUS 2040

This laboratory course enables students to apply the content and methods of music education, including the colorado Model Content Standards for Music, to elementary curriculum planning, implementation, and assessment. Concepts from ART/MUS 2040 will be developed for the purpose of integrating music into the elementary curriculum. Students will apply creative and critical thinking to solve artistic problems using music and expressive movement. Appropriate methods of integrating music into the elementary curriculum, including literacy and mathematics, will be explored.

MUS 2110-3 Music Theory III (3 + 0)

Prerequisites: MUS 1130, MUS 1140, MUS 162B

Corequisite: MUS 2120

This course is the continuation of MUS 1130. It includes the study of the melodic, harmonic, rhythmic, textural, and formal elements of music through analysis and composition and the development of reading and hearing skills as they relate to these elements. It covers chromaticism of the Romantic period leading to 20th century techniques. Aural recognition of materials is emphasized.

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. 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

This course is a continuation of MUS 2110. It includes the study of the melodic, harmonic,

rhythmic, textural, and formal elements of music through analysis and composition and the development of reading and aural skills as they relate to these elements. It covers 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 2340-2 Foundations of Music Education (2 + 0)

Prerequisites: MUS 2110 and MUS 262B

This course is designed to acquaint the student with social and intellectual foundations of music education in historical and contemporary frameworks. Students will become familiar with philosophical and psychological principles of aesthetic education, curriculum design and implementation, teaching music in diverse contexts, legal and financial structures which affect teaching, and professional development resources. Students will examine the role of education and music education in society, and will develop a personal philosophy for teaching music.

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 Music Technology for Educators (0 + 2)

Prerequisite: MUS 1650 or permission of instructor

This course is intended for music education majors. The focus is on learning skills necessary for a career in music education: 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)

Prerequisite: MUS 1720

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 1720. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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

This course is a continuation of MUS 2710. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performances and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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 a successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 1720 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performances and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course may be repeated for credit in a different area of study.

MUS 2740-4 Performance IV (1 + 0 + 1)

Prerequisites: 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

This course is a continuation of MUS 2730 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performances and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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.

MUS 3000-3 Musics of America (3 + 0)

Prerequisite: 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 3020-3 Jazz Styles - America's Music (3 + 0)

Prerequisite: MUS 1000 or permission of instructor

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 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.

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)

Prerequisites: 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.

MUS 3350-2 General Music Methods and Materials (2 + 0)

Prerequisite: MUS 2340

Corequisite: MUS 3351

Students will develop competencies for teaching general music in the elementary and secondary school music classroom. Course content will include an overview and experiences with Orff, Dalcroze, and Kodaly materials and methodologies; classroom and instructional management; assessment strategies; and the role of general classroom music instruction in the total process of education. Instructors will coordinate supervised field experiences with course content to observe and practice instructional processes.

MUS 3351-1 Supervised Field Experience for General Music Methods and Materials (0 + 2)

Prerequisite: MUS 2340

Corequisite: MUS 3350

The student will work with general music teachers in area elementary schools in a 30-hour supervised field experience. The course is designed to integrate concepts developed in MUS 3350 with practice in classroom environments. Must be taken concurrently with MUS 3350.

MUS 3410-1 String Techniques and Materials (0 + 2)

The course offers practical instruction in the technique of playing and teaching string instruments, as well as the organization of string programs in the public schools.

MUS 3420-1 Guitar Techniques and Materials (0 + 2)

This course covers practical instruction in the technique of playing and teaching the guitar.

MUS 3430-1 Woodwind Techniques and Materials (0 + 2)

This course covers practical instruction in playing woodwind instruments with emphasis on acquainting students with techniques and materials necessary in teaching woodwinds.

MUS 3440-2 Jazz Improvisation and Pedagogy (2 + 0)

Prerequisite: MUS 2130

This course enables students to develop jazz improvisation performance skills as well as strategies for teaching instrumental and choral music in the areas of popular and jazz styles.

MUS 3450-1 Brass Techniques and Materials (0 + 2)

This course covers practical beginning instruction in playing the brass instruments. Materials for beginning instrumental music in the public schools are studied.

MUS 3460-1 Percussion Techniques and Materials (0 + 2)

This course covers the study of the methods and materials for teaching beginning percussion in the public schools, including a practical instruction on the instruments.

MUS 3480-1 Marching Band Techniques and Materials (0 + 2)

Prerequisite: sophomore standing

This course studies 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

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

This course is a continuation of MUS 2720. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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

This course is a continuation of MUS 3710. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. A thirty-minute junior recital may be substituted for the jury requirement for MUS 3720. This class may be repeated for credit in a different area of study.

MUS 3730-4 Performance V (1 + 0 + 1)

Prerequisites: MUS 2110, MUS 2120, MUS 2740 and a successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 2740 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course may be repeated for credit in a different area of study.

MUS 3740-4 Performance VI (1 + 0 + 1)

Prerequisites: MUS 3730 and a successful performance concentration audition

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 3730 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course may be repeated for credit in a different area of study.

MUS 3810-1 Ensemble (0 + 2.5)

Prerequisites: junior or senior 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 4360-2 Instrumental Music Methods and Materials (2 + 0)

Prerequisite: MUS 3350

Corequisite: MUS 4361

Students will develop competencies for teaching instrumental music at the elementary and secondary school levels. Course content will include methods and materials, classroom and instructional management, assessment strategies, planning and organization of the instrumental music program, and the role of instrumental music instruction in the total process of education. Instructor will coordinate supervised field experience with course content to allow students to observe and practice instructional processes. (Senior Experience)

MUS 4361-1 Supervised Field Experience for Instrumental Music Methods and Materials (0 + 2)

Prerequisite: MUS 3350

Corequisite: MUS 4360

The student will work with instrumental music teachers in area elementary and/or secondary schools in a 30-hour supervised field experience. The course is designed to integrate concepts developed in MUS 4360 with practice in the classroom environments. Must be taken concurrently with MUS 4360.

MUS 4370-2 Vocal Music Methods and Materials (2 + 0)

Prerequisites: MUS 3350

Corequisites: MUS 4371

Students will develop competencies for teaching vocal music at the elementary and secondary school levels. Course content will include methods and materials, classroom and instructional management, assessment strategies, planning and organization of the vocal music program, and the role of vocal music instruction in the total process of education. Instructor will coordinate supervised field experience with course content to allow students to observe and practice instructional processes. (Senior Experience)

MUS 4371-1 Supervised Field Experience for Vocal Music Methods and Materials (0 + 2)

Prerequisite: MUS 3350

Corequisite: MUS 4370

The student will work with vocal music teachers in area secondary schools in a 30-hour supervised field experience. The course is designed to integrate concepts developed in MUS 4370 with practice in classroom environments. Must be taken concurrently with MUS 4370.

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)

Prerequisites: 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

This course is a continuation of MUS 3720. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course 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

This course is a continuation of MUS 4710. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. This course may be repeated for credit in a different area of study.

MUS 4730-4 Performance VII (2 + 0 + 1)

Prerequisites: MUS 3740 or MUS 4720 and a successful performance concentration audition

Corequisite: MUS 4790 and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 3740 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. At the end of the semester, the student must perform before a faculty jury committee. The repertoire for the completion of MUS 4740, Senior Recital Performance, must be determined in this course. This course may be repeated for credit in a different area of study.

MUS 4740-4 Senior Recital Performance (2 + 0 + 1)

Prerequisite: MUS 4730; satisfaction of all Level I and Level II General Studies course requirements, and senior standing. For senior experience credit, the student must also complete MUS 4790

Corequisite: at least one other music course and the major ensemble in the private instruction area being studied

This course is a continuation of MUS 4730 and is only for students majoring in music performance. It covers individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments, composition, or conducting. It includes attendance at departmental recitals/performance and a performance class in the area of study. During the semester, the student will perform a fifty-minute Senior Recital that must be approved by the process specified on the Senior Recital Hearing Request form. This course may be repeated for credit in a different area of study. (Senior Experience)

MUS 4790-1 Senior Recital Project (0 + 1)

Prerequisites: MUS 3220. For senior experience credit the student must also complete MUS 4740, satisfy all Level I and Level II General Studies course requirements, and have senior standing

Corequisite: MUS 4730

This course involves writing program notes for the repertoire selected for MUS 4740, Senior Recital 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

This is a course in which the student prepares a research project in the area of music theory, history, literature, composition, performance, or pedagogy. Although the senior project may include an aspect of performance, the body of the project shall be scholarly and well documented according to departmental standards. (Senior Experience)

NATIVE AMERICAN STUDIES

NAS 1000-3 Introduction to Native American Studies (3 + 0)

Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests

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 2100-3

(AAS 2100, CHS 2100, ICS 2100, WMS 2100) Women of Color (3 + 0)

Prerequisites: 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 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: ENV 1400 or NAS 1000 or PSC 1010 and junior or senior 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

Pre or Corequisite: ANT 3480

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 3400-3 Research: Nursing Critique (3 + 0)

Prerequisite or Corequisite: A statistics course

This course introduces students to the research process, terminology and a variety of research

methodologies for scientific inquiry. Students critique current research studies for applicability of the findings to nursing. Students identify researchable problems in nursing and participate in experiential learning by practicing 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 3580-4 Management Issues in Nursing (4 + 0)

Pre or Corequisite: NUR 3100

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 3650-3 Ethical Decision Making: Application to Nursing (3 + 0)

Prerequisite: Licensed Registered Nurse

This course is designed to assist nurses to become familiar with an ethical decision making model, apply ethical theories and principles of biomedical ethics to healthcare/nursing dilemmas to determine a course of action, and adopt an appropriate ethical decision making framework in 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)

Pre or Corequisite: NUR 3100

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, cultural, and spiritual 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 3100

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 3100 or may take NUR 3100 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 4300-4 Leadership (4 + 0)

Prerequisites: 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 4500-2 Community Health Nursing I (2 + 0)

Prerequisites: ANT 3480, 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)

Prerequisites: NUR 4510 or may be taken concurrently and NUR 3100, NUR 3580, NUR 3650, NUR 3700, 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 3100, NUR 3510, 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 4830-3 School Health Nursing (1 + 6)

Prerequisites: baccalaureate degree with a major in nursing, current Colorado registered nurse license, physical assessment course, community health nursing course, department immunizations, negative TB screening, individual malpractice and liability insurance

This course assists the student in obtaining the knowledge and skills required to fulfill the role of the school nurse. The student will incorporate theory, research findings, and legal knowledge in assessing, diagnosing, planning, implementing, and evaluating school-age individuals. Students will work with a school nurse preceptor in either an elementary or secondary school. After successfully completing the course, the student may apply for school nurse licensure in Colorado.

NUR 4850-4 Nursing Senior Experience (1 + 6)

Prerequisites: all 3000-level nursing courses, NUR 4500, NUR 4510, NUR 4550, HES 3750

Pre or Corequisite: NUR 4300

This course operationalizes concepts, theories and processes synthesized in the program. The student identifies a health problem of a self-selected client population and studies nursing intervention strategies. The student works with a preceptor to achieve instructor approved behavioral objectives and meets one on one with faculty member during the semester. The student spends one hour in seminar and six hours a week for 15 weeks in a clinical setting. (Senior Experience)

NUTRITION

NUT 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)

NUT 3080-3 Maternal and Child Nutrition (3 + 0)

Prerequisite: NUT 2040 or permission of instructor

This course is designed to increase the student's knowledge about the physiological, psychological, sociological and cultural factors which influence nutritional needs and eating habits of the growing family. Nutrient requirements, dietary planning guidelines and techniques

for assessing 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.

NUT 3100-3 Nutrition and Aging (3 + 0)

Prerequisite: NUT 2040 or permission of instructor

This course is designed to provide students with knowledge about the physiological, psychological and socioeconomic changes which accompany aging and their impact on the dietary practices of the aging population. Nutritional education relevant to this older citizen is emphasized including identification of community resources available to support older citizens in augmenting their food choices.

NUT 3200-3 Nutrition and Sports Performance (3 + 0)

Prerequisite: NUT 2040 or permission of instructor

This course is designed to enable the student, through application of the basic principles of nutrition, to improve his/her health, fitness, and physical performance within the limits set by genetic endowment and level of training.

NUT 3210-3 Community Nutrition (3 + 0)

Prerequisite: NUT 2040

This course is designed to increase student's knowledge in the area of the nutritional status of the individual and family in the community. Nutrition services and programs available in the community will be discussed as well as socioeconomic facts, government programs, and legislation's influence upon health.

NUT 3400-3 Nutrition and Weight Control (3 + 0)

Prerequisites: NUT 2040 or HES 2040, or equivalent

This course is a study of the basic principles of weight management. The roles of nutrition and physical fitness in weight control are examined. This course involves detailed coverage of assessment techniques, behavioral and nonbehavioral approaches and prevention strategies. Fad diets and programs with sound nutrition principles will be analyzed.

NUT 3640-3

(HMT 3640) Healthy Cooking Techniques (2 + 2)

Prerequisite: NUT 2040 or permission of instructor

This course is designed to illustrate the elements of food flavors through the exploration of the nutritional values of fruits, grains, legumes, meats, and vegetables. The principles of healthy cooking and nutrition will be employed and applied to food types to include the demonstration of cooking with less fat and less salt. Students will develop, illustrate, and analyze healthy cooking techniques, recipes, and menus to include nutritional content. This course will conclude with the preparation and service of nutritious meals to the public. Credit will be granted for only one prefix: NUT or HMT.

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 course work 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

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

(HON 1011) Introduction to Philosophy (3 + 0)

Prerequisite: 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. Credit will be granted for only one prefix: PHI or HON. (General Studies—Level II, Arts and Letters)

PHI 1030-3 Ethics (3 + 0)

Prerequisite: 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 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, 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 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 or senior 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: PHI or WMS.

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)

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 or senior 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 3370-3 Computers, Ethics, and Society (3 + 0)

Prerequisites: satisfaction of Level I General Studies course requirements and one of the following: Any PHI course or any CSI course or equivalent

This course investigates the values and value conflicts inherent in the modern practices of the business world, giving special attention to the problems and possibilities associated with computers and computing technologies. Designed to assist students in becoming effective computing professionals, it examines in detail questions concerning professional and ethical responsibilities, privacy and civil liberties, intellectual property, the risks and liabilities of computer-based systems, and the social context of computing, among others. (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

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 Topics (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. This course may be repeated for credit under different topics.

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

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 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 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)

Prerequisites: PHI 1010 and junior or senior 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 1250-6 Physics of Aviation (5 + 2)

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
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)

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)

Prerequisite: PHY 1000 or PHY 2010 or equivalent

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)

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)

Prerequisites: 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 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)

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)

Prerequisite: 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)

Prerequisite: 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 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

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)

Prerequisites: PSC 1010 and satisfaction of Level I General Studies requirement

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 3170-3 Leadership Studies (3 + 0)

Prerequisite: Completion of Level I General Studies requirements

This class focuses on the modern development of leadership studies, from the cornerstone study by James MacGregor Burns in 1978 to the present. The course highlights the debates surrounding the search for a general theory of leadership, the role of values in the study of leadership and the value of leadership itself. A variety of perspectives are presented on the topics covered.

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 resulted in the failure or success of those specific actions. Credit will be granted for only one prefix: PSC or PSC. (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.

PSC 3300-3

(GEG 3300, NAS 3300) Land Use, Culture and Conflict (3 + 0)

Prerequisites: ENV 1400 or NAS 1000 or PSC 1010 and junior or senior 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)

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 3800-3 On Leaders and Leadership (3 + 0)

There are questions about leaders and leadership that have emerged in a variety of contexts throughout the human experience. This course examines those questions by focusing, first, on the general issues connected to leaders and leadership, and, then, by analyzing the role of leaders and the operation of leadership in the organized political world. Such a comparison highlights the similarities and the differences that exist between broad concepts of leadership and the actual practice and meaning of leadership in politics.

PSC 3910-3

(AAS 3910) African Politics and Government (3 + 0)

Prerequisites: 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)

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.

PSYCHOLOGY

PSY 1001-3

(HON 1001) Introductory Psychology (3 + 0)

Prerequisite: minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

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)
(Guaranteed Transfer—SS3)

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 licensure students in early childhood and elementary education only. Students may not substitute PSY 2110 (Educational Psychology) for PSY 1800. Students may not receive credit for both PSY 1800 and PSY 2110.

The course focuses on how developmental and educational psychology can be used to better understand how to teach children. Emphasis is placed on milestones of child development (physical, social-emotional, cognitive and psycholinguistic) birth to adolescence, and the influence of the family, peers, and school on development during the preschool and elementary school years. Special emphasis is placed on cognitive development and learning and the specific cognitive requirements of formal instruction in schools. Students study the major psychological theories of learning and instruction. Research based approaches to effective teaching and how to set age and developmentally appropriate expectations for children are a primary focus. The role of assessment in the learning process and a number of assessment techniques are discussed from a psychological vantage point. Observations of children and of the learning/teaching process in classrooms are a required part of the class and provide experience in the application of course concepts. (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

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 how individuals cope with their own or others' death from infancy through aging. Emphasis will be placed on common causes of death, decisions concerning death, the stages in the death process, psychotherapy with the dying person and family members, and psychological interpretations of burial rituals. Cross-cultural practices in death and dying rituals will be emphasized.

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 covers the major topics, theories, methods, and applications of social psychology. Topic areas include research methodology, person perception, attraction, helping behavior,

aggression, attitudes, persuasion, group processes, and intergroup relations. Both classic and recent work are discussed.

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

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 mastery of an academic content area in psychology. Course content will vary, and the course may be repeated twice with different topics for a maximum of nine hours.

PSY 3000-3 Theories of Personality (3 + 0)

Prerequisite: PSY 1001

Students will learn the major contemporary theories of personality. The course will consider the following perspectives on human behavior and mental processes: psychodynamic, behavioral and cognitive behavioral, humanistic, trait and factorial, and neurobiological. The underlying assumptions 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)

Prerequisites: PSY 1001 and six 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.

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 3240-3 Infancy (3 + 0)

Prerequisite: PSY 1001

The focus of this course is on development during the infancy period, from birth to approximately two years of age. Genetic and prenatal influences on infant development will also be discussed. The course will cover the major theories of child development and research related to infant behavior. Emphasis will be placed on the physical/biological, cognitive, and social/emotional aspects of development during this period.

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. The physical, cognitive, and social/emotional developments of this period will be emphasized, including the influences of peers, parents, and schools. Problems and concerns specific to adolescent development will also be discussed.

(General Studies—Level II, Social Sciences)

PSY 3270-3 Adulthood and Aging (3 + 0)

Prerequisite: PSY 1001

This course is a developmental study of the adult from young adulthood throughout the remainder of life. The course will provide a broad overview of emotional, behavioral, social, physical, and intellectual changes that occur during adulthood. Both theories and research findings will be emphasized; applications will be included.

PSY 3280-3 Developmental Research Methods (3 + 0)

Prerequisite: PSY 1800 or PSY 3250

This course focuses on the design and research methods used in the study of human

development. This includes a survey of methodology that has been used to study development from a multi-disciplinary approach. The course will provide an overview of the statistics used in the field as well as research design. The appropriateness of different methods for different developmental levels will also be discussed. This course cannot substitute for Psychological Research Methods I or II.

PSY 3310-3 Psychological Research Methods I (2 + 2)

Prerequisites: 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 3340-3 Cognitive Development and Learning (2 + 2)

Prerequisite: PSY 1800 or PSY 3250

This course is designed to examine human cognitive development and learning. Topics include the development of cognition and learning throughout the lifespan, psycholinguistics (language acquisition and literacy acquisition), the development of scientific and mathematical thinking in children, and the effects of formal schooling on cognition. Students will complete a practicum project applying the ideas presented in class with children/adults of different ages.

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 or PSY 3000

This course entails 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 course may be repeated twice with different topics for a maximum of nine credit hours.

PSY 3440-3 Cravings and Addictions (3 + 0)

Prerequisite: PSY 1001

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 course work

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) The 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

This course presents an in-depth consideration of current areas and issues in experimental psychology, focusing on the scientific investigation of various aspects of psychological functioning. Course content will vary, and the course may be repeated twice with different topics for a maximum of nine hours of credit.

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)

Prerequisites: PSY 2320 and PSY 3310; or permission of instructor

This course examines current research and theories in cognitive psychology. Topics covered include: attention, pattern recognition, perception, memory, language, thinking, categorization, problem solving, reasoning, and decision making. The information processing and other perspectives to the study of cognition are examined.

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 cognitive, social, and psychological theories of motivation and current

research addressing these theories. Topics discussed will include needs, drives, homeostasis, escape, avoidance, aggression, cognitive dissonance, achievement, and power.

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

(AAS 3700/CHS 3700/WMS 3700) Psychology of Group Prejudice (3 + 0)

Prerequisites: PSY 1001 or AAS 1010 or CHS 1000 or WMS 1001

This course covers psychological theory and research that examines causes, consequences, and ways of reducing prejudice and discrimination. Various expressions of prejudice and discrimination are addressed, most notably racism and sexism. Credit will be granted for only one prefix. (Multicultural)

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 psychological tests which are used in the measurement of achievement, aptitude, and personality. The class stresses reliability and validity of these instruments and the utility and limitations of each type of evaluation measure.

PSY 4300-3 Sensation and Perception (3 + 0)

Prerequisites: BIO 1000 or equivalent, PSY 1001, PSY 2310, and nine additional hours of psychology course work

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 Behavioral Neuroscience (3 + 0)

Prerequisites: BIO 1000 or equivalent, PSY 1001, and nine hours of upper-division psychology courses, or permission of instructor

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 study of basic learning processes. It focuses on experimental tests of learning theories, both historical and contemporary. The course emphasizes non-human investigation while considering human implications.

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 factors engineering focusing on identifying the strengths and limitations of humans, in order to apply human factors design principles in optimizing human interactions with both mechanical and environmental systems, as well as workplace, home, and other environments. Emphasis is on the industrial applications of human factors design principles and psychological research data.

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: 15 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 and meta-theoretical systems in psychology from an historical perspective. Philosophical assumptions as well as cultural and political forces will be discussed. Similarities and differences among the various theoretical models will be highlighted. The student will synthesize and critically evaluate material from previous courses in psychology. (Senior Experience)

PSY 4630-3 Introduction to Clinical Psychology (3 + 0)

Prerequisites: PSY 3000 and PSY 3620

This course is a survey of behavioral disorders with emphasis on assessment, diagnosis, and therapeutic procedures and techniques. There is a focus on Colorado law covering the practice of psychology as well as ethical issues in the practice of clinical psychology.

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 once for credit for a different topic.

PSY 4960-3 Senior Thesis in Human Development (3 + 0)

Prerequisites: senior standing and completion of at least 33 hours in human development major

This course is designed for human development majors as the culmination of the program course

work. Students will develop an interdisciplinary bibliography and utilize research methodology to write and present orally a senior thesis. Each student's thesis topic, concentrating on an area of human development, will be individually chosen, crafted, and researched to synthesize the diverse developmental perspectives surrounding the issue. Topics may be as diverse as evaluating teaching methods, tracking development of a specific skill in children, observing specific aspects of family interactions, and comparing methods of eldercare. Students will meet in seminar with the instructor to work on course objectives and orally present their theses. (Senior Experience)

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)

Prerequisite: 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 learn strategies for transferring these processes to other situations. (General Studies—Level II, Arts and Letters)

RDG 3110-3 Foundations of Literacy Instruction in Grades P-6 (3 + 0)

Prerequisites: PSY 1800, EDU 3100 (for elementary licensure students) or permission of instructor, and satisfactory completion of General Studies Level I composition and mathematics requirement

This course builds the knowledge base of prospective teachers and includes the research and theoretical foundation of P-6 developmental reading programs. It stresses the environmental, cognitive, and language factors influencing the acquisition and development of literacy with emphasis on phonological awareness and graphophonemics. In this course, preservice teachers gain a current knowledge base which will enable them to select instructional techniques, materials, and assessment instruments that will facilitate the literacy development of diverse learners. For licensure, this knowledge base course must be followed by a second reading course, either RDG 3120 for early childhood licensure candidates or RDG 4000 for elementary licensure candidates, that will emphasize performance-based and field-based learning experiences.

RDG 3120-3 Developing Print Literacy: Preschool-Grade 3 (3 + 0)

Prerequisite: RDG 3110

Corequisites: ECE 3150, ECE 3160

Standards-based instructional techniques for literacy in a balanced literacy program, preschool–grade 3, are built

on a foundation of oral language development. The focus of this course is on instruction which enables children to develop the skills, concepts, and attitudes necessary for greatest success in becoming proficient readers and writers. Diverse student populations are addressed when selecting instructional approaches and designing materials for literacy development. The content of this course is practiced in the field experience course, ECE 3160, shared with a planning and management course that is taken concurrently.

RDG 3140-3 Integration of Reading and Writing Across the Curriculum, K–12 (2.5 + 1)

Prerequisite: RDG 3120 or RDG 3280 or RDG 4000 or permission of instructor

Teacher candidates will use quality literature and informational text as they learn to plan, implement, and assess standards based literacy instruction with an emphasis on the integration of reading and writing. They will learn to facilitate the writing process using writers' notebooks and quality texts as models. Instructional activities will be implemented in a fifteen-hour field experience.

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 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 3280-4 Teaching Literacy Skill Development in the Content Areas (4 + 0)

Prerequisites: EDS 3110 and EDS 3120 or permission of instructor

Corequisites: EDS 3210 and EDS 3220 (EDS 3222 for Mathematics teacher candidates) are highly recommended for those seeking secondary endorsements. For those seeking K-12 endorsements, courses in methods of teaching and field experience in the content area are highly recommended

This course is for students seeking educational licensure in a K-12 or 7-12 content area. Course content and objectives prepare teacher candidates to develop student literacy in reading, writing, speaking, viewing and listening. Evidence of teacher candidate proficiency in developing literacy strategies that impact student content learning will be required for course completion. Ideally, RDG 3280 is taken concurrently with EDS 3220 (EDS 3222 for Mathematics teacher candidates) for those seeking endorsements in secondary education. Students seeking K-12 endorsements should ideally take this course concurrently with methods of teaching and field experience in the content areas. In all cases, selected literacy strategies will be applied in a field-based setting.

RDG 3530-3 Techniques of Teaching Reading to Non-English Speakers (2 + 2)

Prerequisite: RDG 3120 or RDG 3280 or RDG 4000 or permission of instructor

Teacher candidates will learn to facilitate acquisition of literacy in English for limited English proficient (LEP) students in grades K–12. They will assess, plan, and implement appropriate

reading and writing instructional strategies and techniques, and locate instructional materials for LEP students. They will complete a 30 hour field experience of structured observations, planning for and tutoring second language learners, and assessing the impact of their instruction.

RDG 3580-3 Reading in the Bilingual–Bicultural Classroom (3 + 0)

Prerequisites: RDG 3120 or RDG 3280 or RDG 4000 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 4000-3 Literacy Instruction in Grades K–6 (3 + 0)

Prerequisites: RDG 3110, EDU 3640, EDU 3650

Corequisites: EDU 4100, EDU 4105

In this course, teacher candidates will extend and apply various components of a K-6 developmental reading program for balanced literacy instruction. They develop and implement instructional plans, materials, and assessment techniques with emphasis on reading and writing standards to succeed in the literacy development of diverse learners. The content of this course provides teacher candidates the opportunity to practice theoretical concepts through structured observations, teaching assignments, and assessment techniques in conjunction with a language arts methods course.

RDG 4250-4 Literacy Assessment: Theory and Practice (4 + 0)

Prerequisite: RDG 3120 or RDG 3280 or RDG 4000, or permission of instructor

In this course teacher candidates will learn how to assess student literacy development from grades pre-K–12. They 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 4550-1–3 Current Literacy Issues: Variable Topics (1–3 + 0)

Prerequisite: RDG 3120 or RDG 3280 or RDG 4000 or permission of instructor

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)

Prerequisites: 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)

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

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 Teaching Science in Middle and Secondary Schools (3 + 0)

Prerequisites: EDS 3110, EDS 3120, EDS 3200 or permission of instructor; major or minor in science; to be taken within 2 semesters of student teaching

Corequisite: EDS 3210 and EDS 3220 recommended

This course is designed for students preparing for teaching science in middle and secondary schools. Students learn to choose, develop and evaluate curriculum based on learner characteristics and Colorado Model Content Standards. A variety of approaches to science instruction are included. The emphasis is on hands-on, minds-on learning. Students have opportunities to implement a variety of approaches to science instruction in a field experience coordinated with EDS 3220.

SPECIAL EDUCATION COURSES

SED 2200-3 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 the multicultural perspectives. Educational approaches for meeting the needs of ethnically diverse learners, as well as students with disabilities that have linguistic and cultural differences are emphasized. (General Studies—Level II, Social Sciences, Multicultural)

SED 2400-2 Classroom Organization and Instruction (2 + 0)

This course provides an overview of current professional issues, trends, laws, and practices in service delivery systems in special education. Teacher candidates will develop a critical understanding of the development and maintenance of effective learning environments and teaching processes.

SED 2700-3 Social/Emotional Development and Disorders (3 + 0)

Prerequisites: SED 2200, SED 2400, EDT 2890, or permission of instructor

This course provides an overview of the major concepts and historical antecedents of special

education services for children and youth with social, emotional and behavioral difficulties. Teacher candidates will develop an understanding of basic concepts related to the social, emotional and behavioral development of children and youth, and the concepts related to disordered behavior.

SED 2800-2 Evaluation and Program Planning: Severe Needs (2 + 1)

Prerequisites: SED 2200, SED 2400, SED 2700, EDT 2890, or permission of instructor

This course focuses on making informed decisions on the selection, use, and interpretation of formal and informal instruments for the assessment of students with severe disabilities. There will be an emphasis on diagnostic-prescriptive teaching. Teacher candidates must complete a 15-hour field experience in an assigned public school and will administer a series of assigned assessments.

SED 3600-3 The Exceptional Learner in the Classroom (3 + 0)

This course provides a survey of various exceptionalities, ranging from moderate to severe. Information about child abuse and medical conditions, and their possible effects on student learning and behavior is provided. Teacher candidates are introduced to the special education processes, including the development of individualized education plans from a general education teacher perspective. Strategies and curriculum adaptations for inclusion in general education classrooms are addressed.

SED 3650-3 Curriculum & Content Standards (3 + 0)

This course provides an overview of the Colorado Model Content Standards for purposes of preparing special educators to address this curriculum in remedial and inclusive environments. Standards for language arts, physical education, social studies, science, mathematics, and the arts will be examined. Lesson planning, IEP development, and adaptations/accommodations will be emphasized in reference to team teaching with general education partners.

SED 3700-3 Educational Exceptionality and Human Growth (3 + 1)

Prerequisites: SED 3600 or permission of instructor

This course provides an overview of the special needs of individuals with physical, communicative, and cognitive disabilities, including levels of severity. Emphasis is given to explaining how these disabilities may influence human growth and how they impact educational experiences, including standards-based education. Teacher candidates must complete a minimum 15-hour field experience in an assigned public school that provides services for children with moderate to severe disabilities.

SED 3800-3 Differentiated Instruction for Students with Disabilities (2 + 2)

Prerequisites: SED 3600, SED 3650 or permission of instructor

This course is designed to teach methods and adaptations for literacy and mathematics instruction for students with disabilities in a variety of classroom settings. Focus will be given to differentiated instruction to address the individual education plan (IEP) goals of students with moderate to severe needs. A minimum 30-hour, supervised field-based experience is required. A component of the teacher work sample is produced to demonstrate developing skills.

SED 3850-3 Diagnosis and Evaluation of Exceptional Students (3 + 0)

Prerequisites: SED 2200, 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 Transitions and Collaborative Practices (3 + 0)

Prerequisites: SED 3600, SED 3650, SED 3800, SED 4050, SED 4200 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. Focus will also be given to transition planning for students with moderate/severe disabilities ages 3 to 21.

SED 4050-3 Evaluation and Program Planning: Moderate Needs (3 + 1)

Prerequisites: SED 3600, SED 3650, or permission of instructor

This course focuses on making informed decisions on the selection, use, and interpretation of formal and informal instruments for the assessment of students with moderate disabilities.

Teacher candidates must complete a series of assessments and reports during a minimum 15-hour field-experience in a public school.

SED 4200-3 Language Development and Reading Disabilities (2 + 2)

Prerequisites: RDG 3110, SED 3600, SED 3650, SED 3800, SED 4050, or permission of instructor

This course focuses on the nature, diagnosis, and treatment of language disorders in reference to reading disabilities. This course will emphasize language development and the remediation of reading problems associated with learning disabilities. The class includes a minimum of 30 hours of field-based experience in a school setting.

SED 4250-3 Effective Behavioral Support Systems (3 + 0)

Prerequisites: SED 3600, SED 3650, or permission of instructor

This course is designed to introduce teacher candidates to the management process in the classroom from a decision-making perspective. The use of systematic behavioral assessments, functional behavior plans, and intervention strategies such as social skill development are emphasized. Teacher candidates are prepared to make appropriate management decisions in diverse contexts in both general and special education classes.

SED 4430-3 Assessment, Instruction & Collaboration Practicum: Elementary (1 + 13)

Prerequisites: EDT 2890, RDG 3110, SED 3600, SED 3650, SED 3800, SED 4050, SED 4200, SED 4250, or permission of instructor

This practicum is a culminating experience that provides teacher candidates with a structured, supervised elementary level practicum in a special education setting for children with moderate needs. Several components of the teacher work sample are produced to demonstrate developing skills. The seminars are designed to address assigned topics and activities that are linked to the teaching responsibilities of the practicum.

SED 4440-3 Assessment, Instruction & Collaboration Practicum: Secondary (1 + 13)

Prerequisites: EDT 2890, RDG 3110, SED 3600, SED 3650, SED 3800, SED 4050, SED 4200, SED 4250, or permission of instructor

This practicum is a culminating experience that provides teacher candidates with a structured, supervised secondary level practicum in a special education setting for adolescents with moderate needs. Several components of the teacher work sample are produced to demonstrate developing skills. The seminars are designed to address assigned topics and activities that are linked to the teaching responsibilities of the practicum.

SED 4490-6 Special Education Student Teaching and Seminar: Elementary (1 + 40)

Prerequisites: must have completed all required courses for the program (see advisor for specific courses for a particular program)

This course is a full-time special education student teaching experience in an accredited public or private elementary school that provides teacher candidates responsibility for teaching an identified group of learners with moderate needs. A minimum of 8 weeks is required for 6 credits, and a minimum of 16 weeks is required for 12 credits. College supervisors provide regularly scheduled observations and seminars, and guidance on the development of the teacher work sample. (Senior Experience)

SED 4500-6 Special Education Student Teaching and Seminar: Secondary (1 + 40)

Prerequisites: must have completed all required courses for the program (see advisor for specific courses for a particular program)

This course is a full-time special education student teaching experience in an accredited public or private secondary school that provides teacher candidates responsibility for teaching an identified group of learners with moderate needs. A minimum of 8 weeks is required for 6 credits, and a minimum of 16 weeks is required for 12 credits. College supervisors provide regularly scheduled observations and seminars, and guidance on the development of the teacher work sample. (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) (Guaranteed Transfer—SS3)

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)

Prerequisites: 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)

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 3080-3 Social Action Through Art (3 + 0)

Prerequisite: SOC 1010 or permission of instructor

This course examines the ways in which sociological concepts and theories relate to the visual arts in contemporary social life. The course emphasizes the various contexts in which visual arts are used to create social integration and social change in small and large groups. In addition, the content of the course provides insight about ways that practitioners may apply sociological principles to create art-related ventures for public and private industries.

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 Chicana/o Community (3 + 0)

Prerequisites: CHS 1000 or permission of instructor; satisfaction of Level I General Studies course requirements

This course offers an in-depth study of the history of Chicana/o community organizations, the process by which they came about, and information relative to existing organizations and their functions in the Chicana/o community. Credit will be granted for only one prefix: CHS or SOC. (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

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)

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 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 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.

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 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)

Prerequisites: 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

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 1000-3 Spanish for Special Purposes: Travel I (3+0)

This course is designed for the student who wants to acquire a basic knowledge of conversational Spanish for personal travel. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1001-3 Spanish for Special Purposes: Travel II (3+0)

Prerequisite: SPA 1000

This course is a continuation of SPA 1000 and is designed for the student who wants to acquire a basic knowledge of conversational Spanish for personal travel. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1002-3 Spanish for Special Purposes: Law Enforcement I (3+0)

This course is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the law enforcement professions. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1003-3 Spanish for Special Purposes: Law Enforcement II (3+0)

Prerequisite: SPA 1002

This course is a continuation of SPA 1002 and is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the law enforcement professions. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1004-3 Spanish for Special Purposes: Medical Professions I (3+0)

This course is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the medical professions. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1005-3 Spanish for Special Purposes: Medical Professions II (3+0)

Prerequisite: SPA 1004

This course is a continuation of SPA 1004 and is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the medical professions. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1006-3 Spanish for Special Purposes: School Personnel I (3+0)

This course is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the school environment. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

SPA 1007-3 Spanish for Special Purposes: School Personnel II (3+0)

Prerequisite: SPA 1006

This course is a continuation of SPA 1006 and is designed for the student who wants to acquire a basic knowledge of conversational Spanish for the school environment. It does not fulfill the prerequisite requirements for any Spanish 2000-level course.

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 Spanish Reading and Conversation I (3 + 0)

Prerequisites: SPA 1010 and SPA 1020

This course emphasizes reading and 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 II (3 + 0)

Prerequisite: SPA 2110, or equivalent, or permission of instructor

This course is a continuation of SPA 2110. It continues to emphasize reading and oral proficiency and 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. Classes are taught mainly in Spanish.

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 3050-3

(FRE 3050, GER 3050, MDL 3050) Cultural Crossroads: France, Germany, Spain (3 + 0)

Prerequisite: ENG 1020

This course gives students the cultural background necessary to understand and appreciate those spiritual and intellectual developments that have given today's three European nations (representing our language disciplines) their characteristics. Main topics include the Indo-European language family, the cultural and technological development of Germanic and Romance-speaking countries, the causes for the rise and fall of these countries throughout the 2000 years under consideration, the role of women in politics and the arts, the development of differing social etiquette, reasons for mass emigrations, and contributions of immigrants to their new countries, and the effect that the European Union has on the educational social welfare of its member nations. Students can get credit for only one prefix.

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)

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 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 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 Survey 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 from the late fifteenth century to the late nineteenth century. Conducted in Spanish.

SPA 3600-3 Latin American Film (2 + 2)

Prerequisite: SPA 2320

This 3000-level course, a survey of recent Latin American film, is interdisciplinary and cross-cultural, emphasizing the socio-economic and political issues that gave rise to a specific movement. This course, conducted in Spanish, is designed to introduce the students to the cinematic work of a number of Latin American film artists, and to heighten perceptual skills in viewing films and increase critical understanding of the ways films function as visual discourse.

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 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 4130-3 Contemporary Mexican Literature (3 + 0)

Prerequisite: SPA 3250 or equivalent, or permission of instructor

This course offers a panoramic view of Mexican literature. It will examine the articulation of diverse social and cultural questions, as well as the ways in which Mexican writers represent themselves and their cultural heritage through literary texts. The student will read and discuss representative works of 20th century Mexican writers. Conducted in Spanish.

SPA 4200-3 Spanish-American Essay: 19th and 20th Centuries (3 + 0)

Prerequisites: 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)

Prerequisites: 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 COMMUNICATION

SPE 1010-3 Public Speaking (3 + 0)

Prerequisite: 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)

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 preassessment 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. Credit will be granted for only one prefix: SPE, EDU or MDL.

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. Credit will be granted for only one prefix: SPE or MDL. (General Studies–Level I, Communications)

SPE 1700-3 Communication Theory (3 + 0)

Prerequisite: SPE 1010 or permission of instructor

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.

SPE 2400-3 Introduction to Radio and Television Broadcasting (3 + 0)

Prerequisite: SPE 1010 or permission of instructor

This course focuses on the evolution of broadcasting, its organization, its function, the personnel involved, and the effect broadcasting has on its audience.

SPE 2530-3 Voice Science: Pathology and Technology (3 + 0)

Prerequisite: 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)

Prerequisites: 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

(WMS 2770) Gender and Communication (3 + 0)

Prerequisites: 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 2850-3

(ART 2850, ENG 2850) Introduction to Cinema Studies (2 + 2)

Prerequisite: completion of Level I General Studies requirements or permission of instructor

This course will introduce the study of motion pictures traditionally projected from film, that is,

of cinema. Along with historical and theoretical concepts, students will learn a vocabulary of analysis that will enable them to articulate critical responses to cinema. During the lab hours students will view narrative films that illustrate various concepts being studied. Students will write analytical critiques of particular films. Credit will be granted for this course with only one prefix, that is, once only as English, Speech or Art. (General Studies—Level II, Arts and Letters)

SPE 2890-3 Language Acquisition (3 + 0)

Prerequisites: SPE 1010 and ENG 1020 or permission of instructor; PSY 1800 highly recommended

This course allows students to investigate theories of language development and describe language development patterns in toddler, preschool and school-age children. The interrelationship between 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 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)

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)

Prerequisites: 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)

Prerequisites: 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 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 3430-3 Radio–Television Announcing (3 + 0)

Prerequisites: SPE 2400 or permission of instructor

This is an advanced course in “on air” operations designed to meet the specific needs of the broadcaster and the radio-television-film announcer. Instruction is designed to develop pleasing and persuasive verbal-vocal-nonverbal communication as a means of improving a variety of presentations. Special emphasis will be placed on standard American usage of speech and language.

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 direction of multi-camera productions. Specific attention is

focused on pre-production, including identification of audience by age, gender, and culture. Students will participate in production activities and procedures on a variety of projects.

SPE 3450-3 Broadcast Journalism: Radio (3 + 0)

Prerequisites: JRN 2100 or permission of instructor

This course is an introduction to radio news writing. Students learn how broadcast news copy differs from print journalism. It involves learning the techniques of writing in the broadcast style used in newsrooms.

SPE 3460-3 Audio Production (1 + 4)

Prerequisite: SPE 2400 or permission of instructor

This course is a hands-on practical guide for beginning and intermediate recording engineers, producers, musicians, and audio enthusiasts offering experiences in a variety of recording situations. Students will learn how to judge recordings and to use the equipment available to improve them.

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 for use on commercial and/or public 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, articulation, audition and the nervous system. Students explore how anatomical and physiological deficits relate to communicative pathology. Credit will be granted for only one prefix: SPE or BIO.

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. Credit will be granted for only one prefix: SPE or BIO.

SPE 3540-3 Phonetics and Language Sample Analysis (3 + 0)

Pre or Corequisite: SPE 2890

Designed to provide students 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 2890

Pre or Corequisite: SPE 1500 or SPE 3600

This course introduces the purposes and principles of diagnostic assessment in communication disorders. Students learn to examine and evaluate various assessment procedures based on reliability and validity issues. This course addresses clinical interviewing, test administration, and communication and report writing skills. Students engage in field observation and assess speech/language development and hearing status of children.

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)

Prerequisites: SED 3600 and SPE 2890

This course allows students to explore the speech, language, and hearing disorders that affect school-age children. Students learn identification, assessment, and intervention methods designed to help children and adolescents with communication disorders and differences achieve academic competencies. Students observe children with communication disorders in school settings.

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)

Prerequisites: 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 speech, language, hearing sciences majors, especially those intending to apply to graduate school.

SPE 3620-3 Aural Rehabilitation (3 + 0)

Prerequisites: (SPE 2890 and SPE 3600) or (SPE 1500 and SPE 2890 and SPE 3570) or (SPE 1500 and SPE 2890 and SPE 3590)

This course allows students to demonstrate knowledge of the responsibilities of the rehabilitative audiologist, speech-language pathologist, or special educator in meeting the communicative and educational needs of children and adults with hearing loss. The heterogeneity of the deaf and hard-of-hearing populations is analyzed in relation to treatment strategies, including the use of technology.

SPE 3740-3 Psychology of Communication (3 + 0)

Prerequisite: SPE 1010 or permission of instructor

This course critically examines 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 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)

Prerequisite: 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)

Prerequisites: junior or senior 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 3981-3 Cooperative Education: Broadcast Journalism (1 + 9)

Prerequisite: SPE 3450

This course gives students an internship experience working as a broadcast journalist at a television station, radio station or another broadcast media outlet where they are able to use the skills learned in the classroom in a supervised, professional setting.

SPE 3982-3-9 Cooperative Education: Broadcast Performance (1 + 9-27)

Prerequisites: SPE 2400 and SPE 3430

This course gives students an internship experience working as talent at a television station, radio station or other broadcast media outlet where they are able to use the skills learned in the classroom in a supervised, professional setting.

SPE 3983-3-9 Cooperative Education: Broadcast Production (1 + 9-27)

Prerequisites: SPE 2400, SPE 3440 and SPE 3480

This course gives students an internship experience working in production at a television station, radio station or other broadcast media outlet where they are able to use the skills learned in the classroom in a supervised, professional setting.

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)

Prerequisites: 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 rhetorical 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 course is an advanced course in television production with projects in both the studio and the field. Specific attention is focused on the production process. Students will participate in a variety of projects.

SPE 4450-3 Broadcast Journalism: Television (3 + 0)

Prerequisite: SPE 3450

This course is an introduction to television news writing. Students learn how to write for a visual medium, including newscast writing and writing for visuals and video.

SPE 4470-3 TV Criticism: Production and Content (3 + 0)

Prerequisite: SPE 3440 or permission of instructor

This course analyzes contemporary television programming for aesthetics and effectiveness. All production elements and the content of programs are critiqued to create a more discerning audience and/or program creator.

SPE 4480-3 Seminar Practicum in Broadcasting (1 + 4)

Prerequisite: SPE 3480 or permission of instructor

This is an advanced course in radio production that offers an opportunity to supervise a variety of productions as a producer/director and to evaluate the production of radio programs including soft news, commercials, and public service announcements. Open to junior- and senior-level broadcasting students, this course may be repeated for a maximum of nine credit hours that may be applied toward their degree.

SPE 4500-3 Clinical Methods in Communication Disorders (2 + 2)

Prerequisites: SPE 2890 and 3 credits from the following list (SPE 3590, SPE 4510, SPE 3620 & SPE 3580)

This course examines professional issues, and intervention principles and practices in speech-language pathology and audiology. The field-based experience allows students to apply

standards-based instruction for children with communication disorders in educational settings and/or implement assessment/intervention methods in clinical settings. (Senior Experience)

SPE 4510-3 Language Disorders (3 + 0)

Prerequisites: SPE 2890 and SPE 3500 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. Field-based observations will be required.

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

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)

Prerequisites: 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)

Prerequisites: 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

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 1400 with a grade of “C” or better, 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)

Prerequisite: high school or college trigonometry or MTH 1400, CET 1100, all with a grade of “C” or better, 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: MTH 1410 and SUR 1510 with grades of “C” or better, 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.

SUR 2530-4 Route Surveying (2 + 4)

Prerequisites: SUR 1520 for CET majors, SUR 2520 and SUR 2620 for SUR majors, all with a grade of “C” or better, 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 development and environmental concerns.

SUR 2540-3 Fundamentals of GPS Surveying (2+ 2)

Prerequisites: MTH 1400 and SUR 1510 with grades of “C” or better, 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 (3 + 0)

Prerequisite: SUR 2520 with a grade of "C" or better, 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 with a grade of "C" or better, 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 templates, digitizing, maintaining coordinate bases and orientation, use of map projections and datums and use of GIS/LIS files.

SUR 3100-3 Survey Data Adjustment and Analysis I (3 + 0)

Prerequisites: MTH 2140, MTH 2410, MTH 3210, PHY 2331, PHY 2341, SUR 2550, all with a grade of "C" or better, 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 with a grade of "C" or better, 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 adjustment techniques for special geodetic problems are presented. (As needed*)

SUR 3150-2 Astronomy for Surveyors (2 + 0)

Prerequisite: SUR 2520 with a grade of "C" or better, 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: junior or senior standing and 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 with a grade of "C" or better, 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 3540 with a grade of "C" or better, 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 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 (3 + 0)

Prerequisites: PHY 2331 and SUR 2550 with grades of "C" or better, 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 is presented. The application of photogrammetry to engineering and surveying mapping programs is discussed. (As needed*)

SUR 3310-3 GIS/LIS Data Base Design (2 + 2)

Prerequisites: SUR 2520 and GIS 2250 with grades of "C" or better, 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: junior or senior standing and 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 3540-3 Boundary Law I (3 + 0)

Prerequisite: SUR 2520 with a grade of "C" or better, 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 with a grade of "C" or better, or permission of instructor

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 3700-3 Geodesy I (3 + 0)

Prerequisites: SUR 2550, PHY 2311, PHY 2321, PHY 2331, PHY 2341, all with a grade of "C" or better, 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 are discussed. (Alternate years*)

SUR 3800-3 Public Land Survey System (3 + 0)

Prerequisite: SUR 2520 with a grade of "C" or better, 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 4100-3 Land and Survey History (3 + 0)

Prerequisite: senior standing 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 3210, SUR 3800, SUR 4100, all with a grade of “C” or better, 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 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: senior standing and 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: senior standing, SUR 3100 and SUR 3700 with grades of “C” or better, or permission of instructor

This course is a continuation of SUR 3700 (Geodesy I). 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. (Senior Experience)

SUR 4310-3 Survey Data Management (2 + 2)

Prerequisites: SUR 3100 and SUR 3700 with grades of “C” or better, 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 and SUR 3700 with grades of “C” or better, or permission of instructor

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: SUR 3310, SUR 4310, GIS 2250, GIS 4850, all with a grade of “C” or better, 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 and SUR 2620 with grades of “C” or better, 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 4510-3 Map Projections and Coordinate Systems (3 + 0)

Prerequisite: senior standing; SUR 3700 with a grade of “C” or better, 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 conformal conic, Mercator, transverse Mercator, oblique Mercator and stereographic, and Albers equal area 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 4530-3 Site Planning (3 + 0)

Prerequisite: senior standing; SUR 2530 and SUR 2550 with grades of “C” or better, 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 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*) (Senior Experience)

SUR 4540-3 Boundary Law II (3 + 0)

Prerequisite: senior standing; SUR 3540 with a grade of “C” or better, 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. (Senior Experience)

***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)

Prerequisite: 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)

Prerequisite: 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 2100-3 Introduction to Family Social Work (3 + 0)

This course will examine family systems theory and family life developmental models. Traditional and nontraditional families will be discussed from an ecological perspective. Introduction to the role and work of the family social worker at the beginning and generalist practice levels will be examined. Stages of family social work will be presented, including culturally and gender-sensitive practice, family-centered practice, home-based support and crisis intervention.

SWK 2150-3 Social Work: The Helping Process (3 + 0)

This course will discuss social work as a helping process from a beginning social work perspective. The basic components of social work with diverse individuals and groups will be examined, including observation, assessment, communication and intervention. Avoiding professional burnout will be discussed.

SWK 2160-1 Record Keeping in Public and Private Agencies (1 + 0)

This course is designed to assist beginning and generalist social workers and other professionals with client and agency record keeping. A full range of records used by social workers and other

agency staff will be presented. A balanced view of accountability, efficiency and privacy will be illustrated through numerous examples and writing exercises.

SWK 3000-1 Applied Legal Issues in Social Work (1 + 0)

Also offered as: SWK 300A–300G (letter denotes concentration)

This course will examine the legal basis for social work practice. It will apply specific laws that govern social work practice in a variety of service delivery areas.

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)

Also offered as: SWK 302A–302G (letter denotes concentration)

Prerequisites: 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

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 or senior 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 or senior 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 or senior 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 3250-3 Social Work and Developmental Disabilities (3 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

This course takes a life-span approach to issues related to children and adults with developmental disabilities, and their families. Students will learn the history of societal treatment of people with developmental disabilities, current trends, philosophies and service delivery models. Students will also learn laws, regulations and eligibility issues related to services in Colorado, and to recognize their own biases and stereotypes about this population. The roles of beginning and generalist social workers in supporting people with developmental disabilities in the community will be presented.

SWK 3300-1 Social Work with Parents with Developmental Disabilities (1 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

This course focuses on the unique learning styles and challenges of adults with developmental disabilities as parents. The roles of beginning and generalist social workers will be applied to this population.

SWK 3400-4 Social Work Macro Practice (4 + 0)

Also offered as: SWK 340A–340G (letter denotes concentration)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

Since the 1900's, social workers have responded to the needs of underserved and oppressed client groups through generalist social work macro practice strategies that include cause advocacy, social action and community development. Social work macro practice principles are applied throughout this course as students find innovative ways to promote social change through coalition building, the legislative process and community resource development in partnership with client populations.

SWK 3410-4 Generalist Practice I (4 + 0)

Prerequisite: 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 approach including initial contact, data collection, problem definition and goal setting.

SWK 3450-4 Mutual Aid Groups in Social Work (4 + 0)

Also offered as: SWK 345A–345G (letter denotes concentration)

Prerequisites: SWK 1010, SWK 1020 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 process.

SWK 3500-4

(WMS 3500) Foundations for Social Work with Gays and Lesbians (4 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

This course explores concepts and methods useful in assessing and addressing the strengths, status, developmental needs, and social issues of lesbian, gay, bisexual, and transgender individuals. Relationships to families, groups, organizations, community and culture are explored and examined. Concepts of diversity and conflicts within this population-at-risk in both urban and rural settings will be presented. Issues of empowerment, support, equality, social justice, social policy and practice will be reviewed and discussed. Credit will be granted for only one prefix: SWK or WMS.

SWK 3600-4

(WMS 3600) Social Work with Women (4 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

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. The role of beginning and generalist social workers with women will be examined in the areas of mental health, health, child welfare, welfare, and gerontology. Credit will be granted for only one prefix: SWK or WMS.

SWK 3700-4 Social Work and Early Intervention: Children Birth Through Five (4 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

This course focuses on parents as initial teachers and recognizes the importance of the early stages of development and the impact that the environment has upon children ages 0–5. Family supports, the early intervention system, and service coordination will be examined. The role of beginning and generalist social workers with this population will be illustrated throughout the identification, assessment, intervention, and evaluation stages of family social work practice.

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 3800-3 Family Preservation in Social Work (3 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

Family Preservation is the current model of practice used throughout child welfare and child protection services. This course focuses on the principles and practices of culturally sensitive, family preservation as it relates to the beginning professional. Knowledge and skills related to building family partnerships, family assessment, planning, and support through in-home services, life skills models, specialized responses to difficult populations, and service coordination are emphasized.

SWK 3990-4 Agency Experience II (1 + 9)

Also offered as: SWK 399A–399G (letter denotes concentration)

Prerequisites: SWK 1010, SWK 1020, SWK 2100, SWK 2150, SWK 2160 and SWK 3000

This course provides students an opportunity to experience working in a social work agency. Students will observe social work in action and experience themselves in helping roles under direct supervision. This course is designed for non-majors.

SWK 4010-4 Generalist Practice II (4 + 0)

Prerequisites: SWK 3050, SWK 3060, SWK 3410, SWK 3780, SWK 3790 or permission of instructor

Corequisite: 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, 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)

Also offered as: SWK 479A–479G (letter denotes concentration)

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)

Also offered as: SWK 381A–381G (letter denotes concentration)

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

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.

THE 2201-2 The Speaking Voice in Performance (1 + 2)

Prerequisite: SPE 1010 or permission of instructor

This course is designed to teach professional voice users (such as actors, teachers, managers, and public speakers) how to develop and use their voice instruments in public performance environments. This course emphasizes that voice work is for everybody.

THE 2210-3 Introduction to Theatre (3 + 0)

Prerequisite: 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)

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)

Prerequisites: 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 2250-3 Stage Management (2 + 2)

Prerequisites: THE 2210 and THE 2240 or permission of instructor

This course provides an introduction to theatre stage management methods and styles; including promptbook and blocking notations, actor management, the ongoing problem solving process involved in production, and the basics of the stage manager's union.

THE 2260-3 Music Theatre History and Performance (3 + 0)

Prerequisites: THE 2210 and THE 2220 or permission of instructor

This course is designed to provide a survey of music theatre history and to explore the fundamentals of music theatre production, which students will then apply to selected music theatre performances.

THE 2270-3 Production Analysis: Process and Technology (3 + 0)

Prerequisite: THE 2210 or permission of instructor

This course provides an introduction to the principles, methods, materials, and processes of theatre art production; including play and script analysis, literary theory, and the communication dynamics within the production team.

THE 2980-1-12 Beginning Internship: Theatre (0 + 3-36)

Prerequisites: THE 2240 and THE 2270 or permission of instructor

This internship places students in educational, amateur, community, or professional theatre arts and entertainment venues. A written learning contract between student, faculty supervisor, site

supervisor, agency, and department chair is required. Activities include performance, various applied theatre technologies, and management.

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 3210-3 Scene Painting (1 + 4)

Prerequisites: ART 1040, ART 1100, THE 2240 and THE 2270 or permission of instructor

The student will learn and develop basic and advanced theatrical scene painting skills. This course will focus on techniques of texture, color mixing, faux finishes and trompe l'oeil painting, the painting of drops and set rendering.

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)

Prerequisites: 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 Production Design and Scenography (2 + 2)

Prerequisites: ART 1100, THE 2240, and THE 2270, or permission of instructor

This course provides an introduction to the basic elements of design and production processes. Emphasis will be placed on the role of scenography, different theories of design, period styles, drafting, model building and utilization of facilities.

THE 3270-3 Introduction to Stage Lighting and Sound (2 + 2)

Prerequisites: ART 1100, THE 2240 and THE 2270 or permission of instructor

This is an introductory course for lighting and sound in the theatre. The student will become familiar with lighting and sound equipment theoretically and practically. Lighting and sound design technologies prepare the student to operate lighting and sound equipment with an emphasis on theatre specific practices and their applied technologies.

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 3980-1-12 Advanced Internship: Theatre (0 + 3-36)

Prerequisite: permission of instructor

This advanced internship requires more specialized skills that students may apply in educational, amateur, community, or professional theatre arts and entertainment venues. A written learning contract between student, faculty supervisor, site supervisor, agency, and department chair is required. Activities include performance, various applied theatre technologies, and management.

THE 4200-3 Reader's Theatre (3 + 0)

Prerequisite: 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)

THE 4210-1-3 Variable Topics in Theatre (3-9 + 0)

Prerequisites: THE 2210, THE 2220 and THE 2240, or permission of instructor

This course provides detailed and intensive study of specific theatre genres and practices.

THE 4220-3 Creative Dramatics for the Classroom Teacher (1 + 4)

Prerequisites: SPE 1010 and THE 2220 or permission of instructor

This course is designed to examine 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 4240-3 Advanced Stage Craft and Applied Scene Technology (1 + 4)

Prerequisites: THE 2240 and THE 2270 or permission of instructor

This course examines the fundamentals of rigging, stage machinery and mechanics, metal working, fabrication with thermoplastics and foams, laminating techniques, "soft" sculpture construction, construction of non-rectilinear scenery, first echelon power tools maintenance, and industry standard safety requirements and practices.

THE 4250-3 Advanced Scene Design: Applied Technology (2 + 2)

Prerequisites: ART 1040, ART 1100, IND 1430, THE 2240, THE 2270, and THE 3250, or permission of instructor

The student will explore the role of the scene designer using elements of scenic design processes. In addition, students will integrate advanced technologies that support the designer with the conception, development and execution of stage settings and their applied technologies.

THE 4260-1 Theatre: Practicum I (0 + 2)

Prerequisites: THE 2240 or permission of instructor

This course provides the student with practical experience in 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 3280 and THE 4260, or permission of instructor

This is an advanced course in practical supervision and administration of theatrical production processes. Students will be responsible for a major production activity. This class is open primarily to sophomore, junior, and senior level students. Course may be repeated for credit up to three times.

THE 4280-3 Advanced Lighting: Applied Technology and Design (2 + 2)

Prerequisites: ART 1040, IND 1430, THE 2240, THE 2270, THE 3250, and THE 3270, or permission of instructor

Advanced applied lighting technology and design fully prepares the student to design, set up, operate and provide basic repair for lighting systems and equipment with an emphasis on theatre specific practices.

THE 4290-3 Advanced Sound: Applied Technology and Design (2 + 2)

Prerequisites: IND 1430, THE 2240, THE 3250 and THE 3270, or permission of instructor

Advanced applied sound technology and design fully prepares the student to design, set up, operate and provide basic repair for sound reinforcement and recording equipment with an emphasis on theatre specific practices. Digital audio and live performance mixing are covered in detail.

URBAN STUDIES

URS 3500-3 Emerging Urban Political Systems (3 + 0)

Prerequisites: Any six hours from PSC 3000, PSC 3020, 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.

WOMEN'S STUDIES

WMS 1001-3 Introduction: Woman in Transition (3 + 0)

Prerequisite: minimum performance standard scores on reading, writing and mathematics preassessment tests

This course introduces the discipline of women's studies, the historical development of feminist thought, and the social, economic, and technological factors which 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; 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 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 2100-3

(AAS 2100, CHS 2100, ICS 2100, NAS 2100) Women of Color (3 + 0)

Prerequisites: 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: 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.

WMS 2770-3

(SPE 2770) Gender and Communication (3 + 0)

Prerequisites: 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 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

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 or senior 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)

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)

Prerequisites: 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 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)

Prerequisites: 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 3470-3

(BIO 3471) Biology of Women (2 + 2)

Prerequisite: BIO 1000 or WMS 1001 or permission of instructor

An examination of the anatomy and physiology of sex in humans, the mechanisms involved in formation of sex and gender, and the interactions between science, society, and medical practice with regard to issues of sex and gender. Credit will be granted for only one prefix: WMS or BIO.

WMS 3480-3

(PSY 3480) The 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.

WMS 3500-4

(SWK 3500 Foundations for Social Work with Gays and Lesbians (4 + 0))

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

This course explores concepts and methods useful in assessing and addressing the strengths, status, developmental needs, and social issues of lesbian, gay, bisexual, and transgender individuals. Relationships to families, groups, organizations, community and culture are explored and examined. Concepts of diversity and conflicts within this population-at-risk in both urban and rural settings will be presented. Issues of empowerment, support, equality, social justice, social policy and practice will be reviewed and discussed.

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 3600-4

(SWK 3600) Social Work with Women (4 + 0)

Prerequisites: SWK 1010, SWK 1020 or permission of instructor

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. The role of beginning and generalist social workers with women will be examined in the areas of mental health, health, child welfare, welfare, and gerontology. Credit will be granted for only one prefix: WMS or SWK.

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 3700-3

(AAS 3700/CHS 3700/PSY 3700) Psychology of Group Prejudice (3 + 0)

Prerequisites: PSY 1001 or AAS 1010 or CHS 1000 or WMS 1001

This course covers psychological theory and research that examines causes, consequences, and ways of reducing prejudice and discrimination. Various expressions of prejudice and discrimination are addressed, most notably racism and sexism. Credit will be granted for only one prefix. (Multicultural)

WMS 3950-3

(ART 3950) Women’s Art/Women’s Issues (3 + 0)

Prerequisites: WMS 1001, ART 1040 or ART 2000 (being changed, see department), 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 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 or senior 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)

Prerequisites: 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

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.

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