Welcome

METROPOLITAN STATE COLLEGE *of* DENVER

This *Catalog* contains
comprehensive information about
Metropolitan State College of Denver,
the degrees and programs it offers, and the requirements
a student must satisfy before receiving a degree.

This publication describes admissions and registration procedures,
as well as services offered by the College.
General information on tuition and fees,
financial aid packages
and procedures
are also covered.

Information in this Catalog is subject to change
For general College information go to MSCD's Web site (www.mscd.edu).

The programs, policies, statements and procedures contained in this publication are subject to change or correction by the College without prior notice. Metropolitan State College of Denver reserves the right to withdraw courses; revise the academic calendar; or change curriculum, graduation procedures, requirements and policies that apply to students at any time. Changes will become effective whenever the proper authorities so determine. This publication is not intended to be a contract between the student and Metropolitan State College of Denver. However, students are bound by the policies, procedures, standards and requirements stated herein, so long as they are in effect.

TABLE OF CONTENTS

(See alphabetical index for specific topics)

The College and Mission Statement 5
Academic Calendar 7
Degrees and Programs 8
Basic Degree Requirements 12
Admissions 17
Enrollment 24
Registration 24
Tuition and Fees 26
Financial Aid 29
Services and Programs for Students 32
Student Life 40
Alternative Credit Options 43
Special Academic Programs 52
General Studies Program 55
Additional Graduation Requirements (Multicultural and Senior Experience) 65
Academic Policies and Procedures 71
Student Rights and Responsibilities 79
School of Business 87
School of Letters, Arts and Sciences 113
School of Professional Studies 219
Course Descriptions 307
Board of Trustees–Metropolitan State College of Denver 527
Officers of Administration 527
Faculty 533
Alphabetical Index 545
Auraria Campus Map . . . . . Inside Front Cover
Extended Campus Location Map . . . . . Inside Back Cover

Produced by: *The Office of Academic Affairs and the Office of College Communications —2005*
Typesetting: *Ruth M'Gonigle*

GENERAL INFORMATION

THE COLLEGE

Metropolitan State College of Denver is a comprehensive, baccalaureate degree granting, urban, non-residential "College of Opportunity." 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 a 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.

With its modified open admission policy, the College welcomes students from all walks of life and circumstances, including all levels of academic preparation consistent with statutory guidelines, all conditions of economic and income status, all ages and all ethnic and cultural backgrounds. In addition to degree-seeking students, non-degree students seeking opportunities for continuing education are welcomed.

- MSCD is required to serve adult students. 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 and transfer students, 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 is a teaching institution where excellence in teaching and learning is accorded the highest priority. Student success, supported in a collegial atmosphere of academic freedom, is of paramount importance, and all members of the college community seek to inspire students to strive for the highest level of future achievement. The College endeavors to provide students with an education that enhances the quality of their lives, and enables them to be well educated, critically thinking citizens who contribute and participate in meaningful ways in community and civic life.

The College awards bachelor of science, bachelor of arts, bachelor of fine arts, bachelor of music and bachelor of music education degrees. Students can choose from 5 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 20,791. Students range in age from 15 to 73 with a median age of 23. Ethnic minorities make up 24 percent of the students.

About 59 percent of students are enrolled full 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:

Adams 13%	Denver. 27%
Arapahoe. 21%	Douglas 7%
Boulder 3%	Jefferson 18%
Broomfield 4%	

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, 43 percent of full-time faculty are women and 20 percent represent ethnic minorities.

The MSCD faculty is among the most productive in the state. Latest QIS (2003-2004) shows average weekly teaching hours per full-time faculty FTE is 12.4 compared to 9.2 for CSU and 6.2 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

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. At least 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.

Online education is the fastest growing distance education option at MSCD with over 4,100 students registering for one or more online classes during the Fall 2004 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).

2005-2006 ACADEMIC CALENDAR

2005 Fall Semester

Registration . . . . . April-August 19
Orientation* . . . . . April-August 19
Classes start . . . . . Monday, August 22
Application for Graduation Deadline . . . . . Friday, September 2
Labor Day (campus closed) . . . . . Monday, September 5
Monday —Wednesday before
Thanksgiving (campus open, no classes) . . . . . November 21–23
Thanksgiving Day (campus closed) . . . . . Thursday, November 24
Friday after Thanksgiving (campus open, no classes) . . . . . Friday, November 25
Classes end . . . . . Saturday, December 9
Final exams begin . . . . . Monday, December 11
Final exams end . . . . . Saturday, December 17
Commencement . . . . . Sunday, December 18

2006 Spring Semester

Registration . . . . . November-January 13
Orientation* . . . . . November-January 13
Martin Luther King, Jr. Day (campus open, no classes) . . . . . Monday, January 16
Classes start . . . . . Tuesday, January 17
Application for Graduation Deadline . . . . . Friday, January 28
Spring Break . . . . . Monday—Sunday, March 20-26
Classes end . . . . . Saturday, May 6
Final exams begin . . . . . Monday, May 8
Final exams end . . . . . Saturday, May 13
Commencement (tentative**) . . . . . Sunday, May 14

2006 Summer Semester

Registration . . . . . April-May 26
Orientation* . . . . . April-May 26
Memorial Day (campus closed) . . . . . Monday, May 29
Classes start . . . . . Tuesday, May 30
Application for Graduation Deadline . . . . . Friday, June 9
Independence Day (campus closed) . . . . . Tuesday, July 4
Classes end . . . . . Saturday, August 5

2006 Fall Semester

Registration . . . . . April-August 18
Orientation* . . . . . April-August 18
Classes start . . . . . Monday, August 21
Application for Graduation Deadline . . . . . Friday, September 1
Labor Day (campus closed) . . . . . Monday, September 4
Monday—Wednesday before
Thanksgiving (campus open, no classes) . . . . . November 20–22
Thanksgiving Day (campus closed) . . . . . Thursday, November 23
Friday after Thanksgiving (campus open, no classes) . . . . . Friday, November 24
Classes end . . . . . Saturday, December 9
Final exams start . . . . . Monday, December 11
Final exams end . . . . . Saturday, December 16
Commencement (tentative**) . . . . . Sunday, December 17

*For orientation, call 303-556-6931
**Call 303-556-6226 to confirm time and location for commencement.

DEGREES AND PROGRAMS

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.

School of Business

	Major	Minor	Degree
Accounting*	X	x	B.S.
Computer Information Systems*	X	x	B.S.
Economics	X	x	B.A.
Finance*	X	x	B.S.
Financial Services		x	
General Business		x	
International Business		x	
Management*	X	x	B.S.
Marketing*	X	x	B.S.

School of Letters, Arts and Sciences

	Major	Minor	Degree
African American Studies	X	x	B.A.
Anthropology	X	x	B.A.
Art*	X		B.F.A./B.A.
Art History,Theory and Criticism		x	
Behavioral Science	X		B.A.
Biology	X	x	B.A./B.S.
Chemistry	X	x	B.A./B.S.
Chicano Studies	X	x	B.A.
Computer Science	X	x	B.S.
Criminalistics		x	
Digital Media		x	
English	X	x	B.A.
Environmental Science*	X		B.S.
Environmental Studies		x	
Family Support in Social Work		x	
French		x	
Geography		x	
Geology		x	
German		x	
Gerontology		x	
History	X	x	B.A.
Human Development	X		B.A.
Interdisciplinary Legal Studies		x	
Journalism	X	x	B.A.
Language		x	
Linguistics		x	
Land Use*	X		B.A./B.S.
Mathematics	X	x	B.A./B.S.
Meteorology	X	x	B.S.
Modern Languages Option I (French, German, Spanish)	X		B.A.
Modern Languages Option II*	X		B.A.
Music	X	x	B.A./B.M.
Music Education*	X		B.M.E.
Native American Studies		x	
Parent Education		x	
Philosophy	X	x	B.A.
Photojournalism		x	
Physics	X	x	B.A./B.S.
Political Science	X	x	B.A.
Psychology	X	x	B.A.
Public Administration		x	
Public Relations		x	
Social Work*	X	x	B.S.
Sociology	X	x	B.A.

	Major	Minor	Degree
Spanish		x	
Speech Communication	X	x	B.A.
Speech, Language, Hearing Sciences		x	
Studio Art		x	
Theatre	X	x	B.A./B.F.A.
Women's Studies (Institute for Women's Studies and Services)		x	

School of Professional Studies

Airframe and Powerplant Mechanics		x	
Aviation Management	X	x	B.S.
Aviation Technology	X	x	B.S.
Bilingual/Bicultural Education		x	
Civil Engineering Technology+	X		B.S.
Criminal Justice and Criminology*	X	x	B.S.
Digital Media		x	
Early Childhood Education		x	
Electrical Engineering Technology+	X	x	B.S.
Elementary Education		x	
Gerontology		x	
Health and Safety		x	
Health Care Management (upper-division)	X	x	B.S.
Holistic Health & Wellness Education Multi-Disciplinary		x	
Hospitality, Meeting and Travel Administration*	X		B.A.
Hotel Administration		x	
Human Performance and Sport	X	x	B.A.
Human Services*	X	x	B.S.
Industrial Design*	X		B.S.
Leisure Studies	X		B.A.
Leisure Services		x	
Mechanical Engineering Technology+	X	x	B.S.
Meeting Administration		x	
Network Communications		x	
Nursing (upper-division for RNs)*	X		B.S.
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	B.A.
Surveying and Mapping	X	x	B.S.
Teacher Licensing: Early Childhood, Elementary, Special Education, K-12, and Secondary			
Technical Communications	X	x	B.S.
Travel Administration		x	

Other

Individualized Degree Program[1]	X	x	B.A./B.S.

+Concentration may replace the minor.

[1]*see pages 12, 53 and 54 of this Catalog*

Accreditations/ Approvals

Metropolitan State College of Denver is accredited by The Higher Learning Commission and is a member of 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
Athletic Training Education Program*	Commission on Accreditation of Allied Health Education Programs (CAAHEP) 35 East Whacker Dr., Suite 1970 Chicago, IL 60601 (312) 553-9355 www.caahep.org
Center for Addiction Studies**	Colorado Department of Health
Chemistry**	American Chemical Society
Civil Engineering Technology* Electrical Engineering Technology* Mechanical Engineering Technology*	Technology Accreditation Commission of ABET: The Accreditation Board for Engineering and Technology, Inc. 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 Phone: 410-347-7700 Fax: 410-625-2238 www.abet.org
Computer Science*	Computing Accreditation Commission of ABET (see above)
Surveying and Mapping*	Applied Science Accreditation Commission of ABET (see above)
Criminalistics Program in Chemistry	Forensic Science Education Program Accreditation Commission
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
Leisure Studies*	National Recreation and Park Association/ American Association for Leisure and Recreation
Human Services**	Council for Standards in Human Services Education
Art* Industrial Design*	National Association of Schools of Art and Design 11250 Roger Bacon Drive, Suite 21, Reston, VA Phone: 703-437-0700 Fax: 703-437-6312
Music*	National Association of Schools of Music
Nursing*	National League for Nursing Accrediting Commission (NLNAC) 61 Broadway, 33rd Floor, New York, NY 10006 Phone: 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 Academic Affairs, 303-556-3040.

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

School of Business

Database Analyst 96
End User Support Specialist 96
Network Specialist in Information Systems 96
Noncredit Financial Planning 101
Personal Financial Planning 100
Programmer/Analyst in Information Systems 96
Web Developer in Information Systems 97

School of Letters, Arts and Sciences

Advanced Software Engineering Techniques 137
Basic Competency in French 181
Basic Competency in German 181
Basic Competency in Spanish 181
Career and Personal Development 218
Family Support in Social Work (seven concentrations available) 202
Geographic Information Systems (GIS) 168
Geotechnology Systems (GTS) 169
German Translation 181
Gerontology (Liberal Arts Orientation) 152
Public Administration 195

School of Professional Studies

Activities Assistant for Older Adults 257
Corporate Video Production 306
Electrical Engineering Technology 238
Engineering Fundamentals 238
Gerontology (Professional Services Orientation) 240
High Risk Youth Studies 261
Multimedia Production 306
Network Communications 238
Nonprofit Organization Administration 262
Reading Certificate for Post BA Early Childhood Students 277
Reading Certificate for Post BA Elementary Students 277
Reading Certificate for Secondary Licensure Students or Post BA Secondary Students 277
Technical Writing and Editing 306

Individualized Degree Program

The Individualized Degree Program (IDP) offers the student the opportunity to design her/his own major or minor in collaboration with a faculty mentor and an advisor from the Center for Individualized Learning. The IDP serves students whose educational goals are not met by other majors/minors described in the MSCD *Catalog.* Students draw upon courses from across the College to develop a degree plan, and pursue a wide range of areas of study.

International Studies, Integrated Arts & Sciences, Computer Information Systems, Criminalistics, Family Studies, Health and Wellness, and Arts Administration are examples of a few of the areas students have pursued through the IDP.

The faculty mentor, the appropriate department chair, the dean and the director of the Center for Individualized Learning approve each student's program. All requirements for any bachelor's degree apply.

For additional information contact the Center for Individualized Learning (303-556-8342, Central Classroom 106). Additional information is also available on pages 53 and 54 in this *Catalog* and at www.mscd.edu/~cil/.

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 student and it is recommended that s/he 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 2005—September 2, 2005; Spring 2006—January 27, 2005; Summer 2006—June 9, 2006.
- 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.

Credit Limitations

- No more than 30 semester hours of omnibus-numbered courses may be applied toward graduation requirements (see page 307 of this Catalog).
- 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 (HPL) or 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.
- 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 Metropolitan State College of Denver.
- 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 Web site 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 obtain a CAPP Compliance Report by requesting one from their major department or by logging on to http://metroconnect.mscd.edu. 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 2005 graduation, file by September 2, 2005; for Spring 2006 graduation, file by January 27, 2006; and for Summer 2006 graduation, file by June 9, 2005. 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 are commencement ceremonies 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 Web site for complete, up-to-date information about commencement at www.mscd.edu/student/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 the Registrar's home page http://www.mscd.edu/enroll/registrar under transcripts. 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

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 55 of this *Catalog* or to www.state.co.us/cche/gened/gtpathways/index.pdf.

General Studies Goals

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

Students at Metropolitan State College of Denver 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 principal 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 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 listing of these courses begins on page 55 of this *Catalog* and courses approved for General Studies are 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.

MSCD students who have not attended the College for three consecutive semesters need to submit an application for readmission. For more information, see Admission of Previously Enrolled Students on page 19 of this *Catalog*.

Application Deadline

To find out the application deadline for your intended term of enrollment, please visit www.mscd.edu/admissions.htm. For the best possible selection of courses, students are advised to apply early. Refer to page 7 of this *Catalog* for important dates.

APPLICANTS 19 YEARS OLD OR YOUNGER

Applicants who are 19 years old or younger on September 15 for either summer semester or fall semester, or on February 15 for spring semester, will be classified as traditional applicants. They will be considered for admission using the requirements described below. Note that to be eligible for admission, students must be at least 16 years old on the first day of the semester.

Freshmen (first-time college students)

- Applicants with Colorado Commission on Higher Education (CCHE) index scores of 76 or greater will be considered for admission (see chart on page 23 of this *Catalog*). Those with index scores below 85 are strongly encouraged to submit letters of recommendation and a personal statement, and must complete their application files at least *one month* before classes begin. Otherwise, they will be considered for the following term. Those denied admission will be encouraged to enroll at a community college.
- MSCD **guarantees admission** to applicants with a CCHE index score of 85 or greater, an ACT English subscore of 18 or above and a reading subscore of 17 or above (or an SAT verbal score of 440 or above), and who apply by the published application deadline.
- Applicants must request that the following credentials be mailed directly to the Office of Admissions from the high school or testing agency before an admission 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. 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 record with date of graduation has been received by the Office of Admissions.
- 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.

College Transfers

- Applicants with 30 or more *transferable* semester hours completed with at least a 2.3 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 2.3 GPA from all colleges and universities attended will be considered on an individual basis that includes a careful review of all credentials. Letters of recommendation and a personal statement are strongly recommended. Such applicants must complete their application files at least *one month* before classes begin. Otherwise, they will be considered for the following term.
- Applicants must request that the following credentials be mailed directly to the Office of Admissions from the high school, testing agency and/or college or university:
  - ⇒ ACT or SAT test results
  - ⇒ Official high school transcript with GPA and class rank
  - ⇒ Official transcript from each college or university attended or currently attending
- 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 summer semester or fall semester, or on February 15 for spring semester, will be considered for admission using the requirements described below.

Freshmen (first-time college students)

- Applicants will be admitted to MSCD 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. GEDs 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 mailed directly to the Office of Admissions. Degree-seeking students will not be permitted to register for a second semester until this official credential is received.
- The ACT or SAT is not required for admission but, if taken within five years of the semester start date, is highly recommended for advising and course placement purposes.

College Transfers

- Applicants will be admitted to MSCD, regardless of their cumulative college GPA, if they indicate 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 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 mailed directly to the Office of Admissions. In place of these credentials, official college transcripts showing completion of 30 or more transferable semester credit hours with grades of “C” or better will be accepted. College transfer students should request to have college transcripts mailed directly to the Office of Admissions for transfer credit evaluation. Degree-seeking applicants are required to have all college and university transcripts on file to receive a complete evaluation.
- The ACT or SAT is not required for admission but, if taken within five years of the semester start date, is highly recommended for advising and course placement 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 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 on page 21 of this *Catalog*.

To apply for admission:

- Applications can be submitted online at www.mscd.edu or are available from Metropolitan State College of Denver, Office of Admissions, Campus Box 16, P.O. Box 173362, Denver, CO 80217-3362, Central Classroom Building, Room 108, 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.
- It is the student's responsibility to request that all required official 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 college record may be summarized on one transcript, an official transcript from each institution attended is required.
- For information on obtaining records and receiving credit for Advanced Placement (AP), International Baccalaureate (IB), the College-Level Examination Program (CLEP) and military training or other training, see Alternative Credit Options on page 43 of the *Catalog*.
- The Application for Admission and all credentials received by the College will be valid for two semesters beyond the term of application. After that time the files will no longer be maintained for students who do not enroll. Applicants wishing to attend MSCD after this period must begin the admission process again, including re-mailing all credentials and the $25 application fee.

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 but have not been in attendance at MSCD for three consecutive semesters.

Readmit students should:

- Submit a completed Application for Admission and check the readmission box on the top of the form under Application Status. *No application fee is required for readmission.*
- 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 are not eligible for financial aid, nor will any college transcripts submitted be evaluated for transfer credit. Students may change to degree-seeking status by completing a Status Change form and requesting that all required official credentials be mailed directly from the issuing institution or agency to the Office of Admissions.

Admission Notification

Once admitted, students will be mailed instructions regarding course registration and other relevant information. All incoming students new to MSCD are required to attend an orientation session. After orientation, first-time college students and transfer students 19 years old or younger are also required to meet with an academic advisor. 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 Office of Admissions, along with new and compelling academic information, letters of recommendation and other supportive documentation.

ADDITIONAL ADMISSION PROGRAMS

Summer 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 and are not eligible for financial aid. Please check the appropriate box under the Metro Plans section on the Application for Admission. Summer Only students who wish to continue for the fall or spring semester must meet stated admission requirements and submit a Status Change Request form to be considered.

High School Concurrent Enrollment Programs

(High School Students Only)

Postsecondary Enrollment Options and Fast Track Programs

The Postsecondary Enrollment Options (PSEO) and Fast Track are sponsorship programs enacted by state law in 1988 that provide high school juniors and seniors with the opportunity to take college classes for both high school and college credit. These programs are intended to provide high school students with an alternative learning environment.

To participate, 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. PSEO students are responsible for payment of all tuition and fees by the College deadline. They are later reimbursed by their school districts for tuition (not fees) for up to two courses per semester, providing that they successfully complete these classes with grades of C or better. Fast Track students are not limited to two courses, and the school districts pay tuition (not fees) at the time they register. To apply to the PSEO or Fast Track Program, a student must submit the following:

- High School Concurrent Enrollment form, including student, parent, school district and college administrator signatures
- Completed MSCD admission application with the required $25 application fee

Upon receipt of these documents, the student will be admitted into the PSEO or Fast Track Program. ACT scores, SAT scores or assessment tests are required to access many classes.

Student Education and Enrichment Program

The Student Education and Enrichment (SEE) Program 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 Colorado high school juniors and seniors. *Students who participate in the SEE Program are fully responsible for tuition and fees.*

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

- High School Concurrent Enrollment form, including student, parent, school district and college administrator signatures
- Completed MSCD admission application with the required $25 application fee

Upon receipt of these documents, the student will be admitted into the SEE Program. ACT scores, SAT scores or assessment tests are required to access many classes.

Western Undergraduate Exchange

Through the Western Undergraduate Exchange (WUE), students in western states (AK, AZ, CO, HI, ID, MT, NV, NM, ND, OR, SD, UT, WA, WY) may enroll in many out-of-state two-year and four-year college programs at a reduced tuition level: 150 percent of the institution's regular resident tuition. WUE tuition is considerably less than non-resident tuition.

The following MSCD majors are open to WUE students on a space-available basis: Civil Engineering Technology; Health Care Management; Hospitality, Meeting and Travel Administration; Meteorology; and Surveying and Mapping. Qualified students must apply and be admitted to MSCD and must submit a WUE New Student Participation Form to the Office of Admissions. This form and more information may be obtained at www.mscd.edu/enroll/admissions/paths/wiche or by contacting the Office of Admissions at the Central Classroom Building, Room 108, 303-556-3058.

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. Metro Meritus encourages participants to continue their personal educational growth in a stimulating and friendly campus setting. For more information, contact the Center for Individualized Learning at the Central Classroom Building, Room 106, 303-556-8342. Application forms are also available at www.mscd.edu/~cil.

Admission of International Students

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

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

Applicants who are on any type of temporary visa are required to submit the International Application for Admission, which can be obtained from the Office of Admissions or online at www.mscd.edu/admissions.htm.

Applicants on temporary visas are required to submit (1) a minimum of an official high school transcript/diploma that is determined equivalent to high school graduation in the U.S., (2) English language proficiency documentation, normally in the form of an acceptable TOEFL (Test of English as a Second Language) score, and (3) documents demonstrating sufficient financial support 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 visas). Detailed information regarding all requirements and admission procedures for international students can be obtained from the Office of Admissions and on the International Application for Admission. 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 receive two copies of the transfer credit evaluation, one of which should be taken to the major and minor departments for advice on how credits might apply to degree programs.

Transfer credits are accepted under the following guidelines:

- Credit must have been earned at an institution of higher education holding full regional accreditation.
- MSCD accepts up to 64 semester hours from two-year institutions and up to 90 semester hours from four-year institutions or a combination of two-year and four-year institutions.
- Grades earned must be a "C-" or better. Courses with "D," "F" or similar grades are not transferable. Also, courses graded with C.E.U.s (Continuing Education Units) will not be accepted. A summary of transfer credit from each institution is indicated on the MSCD academic record. Neither transfer course grades nor previous grade point averages are indicated or affect the MSCD grade point average.
- Course content must be similar to that of MSCD courses.
- No preparatory courses are applicable toward an MSCD degree.
- 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 transcripts, are considered to have satisfied MSCD'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 regarding students 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.

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
- Guidance on selecting appropriate transferable courses
- Preliminary transcript evaluation
- Transfer student scholarships
- Referral assistance to academic departments
- Resolution of transfer course issues

Transfer counselors are available by appointment and for walk-in counseling. Counselors work closely with transcript evaluators to provide students with information about transfer credits and how those credits may be applied to their degree programs. Questions pertaining to a student's official transfer credit evaluation should be referred to the transfer evaluator responsible for the evaluation. That person's name and telephone number are found on the letter that accompanies the evaluation sent to the student. General questions regarding a 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 for Applicants 19 Years Old or Younger

	SAT	400-490	500-540	550-600	610-680	690-740	750-790	800-830	840-870	880-920	930-960	970-1000	1010-1040	1050-1070	1080-1110	1120-1150	1160-1190	1200-1230	1240-1270	1280-1300	1310-1340	1350-1390	1400-1430	1440-1480	1490-1540	1550-1590	1600
	ACT	11 or Below	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
HS Rank	HS GPA																										
0-1	0.0-1.3	45	47	49	51	53	55	57	59	61	63	65	68	70	72	74	76	78	80	82	84	86	88	90	93	95	97
2-3	1.4-1.5	49	51	53	55	57	59	61	63	65	67	69	72	74	76	78	80	82	84	86	88	90	92	94	97	99	101
4	1.6	51	53	55	57	59	61	63	65	67	69	71	74	76	78	80	82	84	86	88	90	92	94	96	99	101	103
5-6	1.7	52	54	56	58	60	62	64	66	68	70	72	75	77	79	81	83	85	87	89	91	93	95	97	100	102	104
7-8	1.8	54	56	58	60	62	64	66	68	70	72	74	77	79	81	83	85	87	89	91	93	95	97	99	102	104	106
9-10	1.9	56	58	60	62	64	66	68	70	72	74	76	79	81	83	85	87	89	91	93	95	97	99	101	104	106	108
11-12	2.0	58	60	62	64	66	68	70	72	74	76	78	81	83	85	87	89	91	93	95	97	99	101	103	106	108	110
13-15	2.1	60	62	64	66	68	70	72	74	76	78	80	83	85	87	89	91	93	95	97	99	101	103	105	108	110	112
16-18	2.2	61	63	65	67	69	71	73	75	77	79	81	84	86	88	90	92	94	96	98	100	102	104	106	109	111	113
19-22	2.3	63	65	67	69	71	73	75	77	79	81	83	86	88	90	92	94	96	98	100	102	104	106	108	111	113	115
23-26	2.4	65	67	69	71	73	75	77	79	81	83	85	88	90	92	94	96	98	100	102	104	106	108	110	113	115	117
27-30	2.5	67	69	71	73	75	77	79	81	83	85	87	90	92	94	96	98	100	102	104	106	108	110	112	115	117	119
31-34	2.6	69	71	73	75	77	79	81	83	85	87	89	92	94	96	98	100	102	104	106	108	110	112	114	117	119	121
35-38	2.7	70	72	74	76	78	80	82	84	86	88	90	93	95	97	99	101	103	105	107	109	111	113	115	118	120	122
39-43	2.8	72	74	76	78	80	82	84	86	88	90	92	95	97	99	101	103	105	107	109	111	113	115	117	120	122	124
44-48	2.9	74	76	78	80	82	84	86	88	90	92	94	97	99	101	103	105	107	109	111	113	115	117	119	122	124	126
49-53	3.0	76	78	80	82	84	86	88	90	92	94	96	99	101	103	105	107	109	111	113	115	117	119	121	124	126	128
54-58	3.1	78	80	82	84	86	88	90	92	94	96	98	101	103	105	107	109	111	113	115	117	119	121	123	126	128	130
59-62	3.2	79	81	83	85	87	89	91	93	95	97	99	102	104	106	108	110	112	114	116	118	120	122	124	127	129	131
63-67	3.3	81	83	85	87	89	91	93	95	97	99	101	104	106	108	110	112	114	116	118	120	122	124	126	129	131	133
68-72	3.4	83	85	87	89	91	93	95	97	99	101	103	106	108	110	112	114	116	118	120	122	124	126	128	131	133	135
73-76	3.5	85	87	89	91	93	95	97	99	101	103	105	108	110	112	114	116	118	120	122	124	126	128	130	133	135	137
77-81	3.6	87	89	91	93	95	97	99	101	103	105	107	110	112	114	116	118	120	122	124	126	128	130	132	135	137	139
82-85	3.7	88	90	92	94	96	98	100	102	104	106	108	111	113	115	117	119	121	123	125	127	129	131	133	136	138	140
86-89	3.8	90	92	94	96	98	100	102	104	106	108	110	113	115	117	119	121	123	125	127	129	131	133	135	138	140	142
90-92	3.9	92	94	96	98	100	102	104	106	108	110	112	115	117	119	121	123	125	127	129	131	133	135	137	140	142	144
93-100	4.0	94	96	98	100	102	104	106	108	110	112	114	117	119	121	123	125	127	129	131	133	135	137	139	142	144	146

Source: Colorado Commission on Higher Education

How to read this chart

Find your high school class percentile rank and grade point average on the left. Choose the number closest to the bottom of the chart. Line up that number with your SAT or ACT score along the top and locate the corresponding number on the chart. This is your index score.

If your score is less than 85 but is 76 or greater, admission will be considered on a case-by-case basis.

If your index score is 85 or greater, and you have an ACT English subscore of 18 or above and a reading subscore of 17 or above (or an SAT verbal score of 440 or above), you are **guaranteed admission**.

ENROLLMENT

New Student Orientation

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 College 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 Web site (www.mscd.edu/~nso/) or call 303-556-6931.

Reading, Writing and Mathematics Placement Examinations

If the ACT or SAT has been taken, 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 440), 19 in math (SAT math of 460) or 17 in reading (SAT verbal of 430). For additional information on English or Reading, call 303-556-3677. For additional information regarding mathematics placement, visit the MSCD Web site at http://clem.mscd.edu/~math-cs/studentinfo/mglp.pdf 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: 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 MetroConnect (http://metroconnect.mscd.edu), or by writing or faxing (303-556-3999) the address and phone number change to the Registrar's Office.

Information on the registration procedure and registration dates is available on MetroConnect (http://metroconnect.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

MSCD and the University of Colorado at Denver have formed a common pool of courses available to students at each institution. For the pool, MSCD offers courses through the School of Letters, Arts and Sciences, through the Economics Department in the School of Business and through the Technical Communications and Human Performance and Leisure Studies departments in the School of Professional Studies. UCD offers courses through the College of Liberal Arts and Sciences.

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

- must comply with all MSCD 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 MSCD, 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).

MSCD/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 MSCD at the end of the semester.

Students are advised:

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

Interinstitutional Registration

Students enrolled at Metropolitan State College of Denver 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.

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 and no academic record is maintained. The cost for auditing a course is based on regular tuition. The Tuition and Fees Table is available on MSCD's Web site (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 MetroConnect (http://metroconnect.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. An 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 MetroConnect (http://metroconnect.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 29 of this *Catalog)*. To be eligible for health insurance coverage automatically, the numbers are 10 semester hours in the fall and spring and eight semester hours in the summer. (See page 29 of this *Catalog)*. You can order an enrollment verification on MetroConnect (http://metroconnect.mscd.edu).

TUITION AND FEES

Tuition Classification

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

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

Domicile for tuition purposes requires two inseparable elements: (1) a permanent place of habitation in Colorado and (2) intent to remain in Colorado with no intent to be domiciled elsewhere. Some examples of connections with the state that provide objective evidence of intent are: (1) payment of Colorado state income tax as a Colorado resident, (2) permanent employment in Colorado, (3) ownership of residential real property in Colorado, (4) compliance with laws imposing a mandatory duty on any domiciliary of the state, such as the drivers' license law and the vehicle registration law and (5) registration to vote.

Other factors unique to the individual can also be used to demonstrate the requisite intent.

Any questions regarding the tuition classification law should be directed to an admissions officer at the College. In order to qualify for in-state status for a particular semester, the student must prove that domicile began not later than one year prior to the first day of classes for that semester. The dates for qualifying and for submitting petitions are available under Academic Calendar on MSCD's Web site (http://www.mscd.edu/academic/acal.htm).

College Opportunity Fund (COF)

Beginning Fall 2005, every eligible Colorado resident who will be a student *must* sign up for the new College Opportunity Fund (COF) in order to authorize payment of the state's contribution toward tuition at any public college or university in the state of Colorado that the student plans to attend, such as Metropolitan State College of Denver.

These funds, called "stipends," will be applied to a student's college account each semester and are available for up to 145 credit hours of college-level undergraduate study. The actual value of the stipend will be determined by the Colorado Legislature each year. For the 2005-2006 academic year it is estimated to be $80 per credit hour.

Students *must* apply online for the stipend at www.CollegeInColorado.org.

What happens if a student does not sign up? **That student will not be eligible for the stipend and will be responsible for paying the total in-state tuition** – both the student's share and the state's share (which prior to Fall 2005 was being paid directly to the institution, without the necessity for authorization through the student's COF application).

The COF application requires students to submit only their legal name, date of birth and Social Security Number, and needs to be completed only once in a student's lifetime. The application *must be completed* before the stipend can be credited to a student's tuition and fee bill.

Eligibility: In-state, undergraduate students will be eligible for the stipend regardless of age, income or financial aid status. Students who are seeking a second bachelor's degree or post bachelor degree credit are eligible to use the stipend for up to 30 credit hours.

For more information: Not all of the details were available when this *Catalog* was printed. As more information becomes available, it will be communicated to students, faculty and staff via MetroConnect email. In the meantime, for COF stipend general information and application please visit: www.CollegeInColorado.org.

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 can be found by going to the Tuition and Fees Table on MSCD's Web site (http://www.mscd.edu/enroll/admissions/tuition.htm).

Standard Fees

An application fee is required of any applicant 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	$50
Special fees	
Returned check charge	$17

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 and providing proof of acceptable* outside health insurance coverage (a copy of the front and back of your insurance card) by the deadline indicated on the appropriate semester waiver form. 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 both the Student Health Insurance Office located in the Health Center at Auraria (PL 150) and the Student Accounts Office (CN 110). Waiver forms are available from the Health Center at Auraria Web site at http://www.mscd.edu/student/resources/health/insurance.htm**.** Students requesting a waiver must:

- Complete the student health insurance waiver form.
- Attach a copy of a valid outside 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 the appropriate semester waiver form (URL given above) (deadline and insurance standards change 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 in which 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 center's per-semester 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 Web site (URL given above). Students with questions regarding Student Health Insurance should contact the Student Insurance Office at 303-556-3873.

**Effective August 1, 1998, the Colorado Indigent Care Program (CICP) 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 Web site or call 303-556-3873.*

**For a waiver to be approved (effective Fall semester 2005) the outside health insurance plan must be in the form of individual, indemnity or group health coverage that includes:*

- *A deductible of no more than $5000*
- *Co-insurance amounts of no more than 50%*
- *A maximum benefit of no less than $250,000 annually.*

STUDENT DENTAL INSURANCE
Voluntary Program for all Students

Voluntary Dental Insurance is available to 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 Metropolitan State College of Denver 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 2004-2005 academic year expenses will be as follows for a student not living with parents:

	Resident	Nonresident
Tuition and Fees	$3,793	$10,538
Room and Board	7,235	7,235
Books and Supplies	1,187	1,187
Transportation	575	575
Miscellaneous	1,045	1,045
Total	$13,835	$20,580

Tuition and fees are set by Metro and Colorado 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 owement 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. 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 12th.

Detailed information concerning application procedures is provided at our Web site, 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 2005-06 academic year will range from $400 to $4,050 for those students who qualify. Full-time, half-time, or less than half-time students may qualify for a Federal Pell Grant.

Federal Supplemental Educational Opportunity Grants (FSEOG) are federal funds awarded to undergraduate students who have not yet received a bachelor's degree and are U.S. citizens or eligible non-citizens. This grant is awarded to students who demonstrate exceptional need. The amount of FSEOG awards range from $100 to $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 U.S. citizens or eligible non-citizens, and are enrolled full- or part-time (at least six credit hours for the fall and spring semesters) at MSCD. The amounts 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. The amount of the CLEAP award is $200 per semester.

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. Presidential High School scholarships cover up to the cost of tuition and mandatory fees per semester for up to 15 credits.

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 scholarship Web site (www.mscd.edu/enroll/finaid/scholarship) for information regarding scholarships and to access free online scholarship searches.

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 that 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 Web site (www.mscd.edu) 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 emailed an Award Notification.

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 cur-

rent 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 Web site (www.mscd.edu) 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 Web site (http://www.mscd.edu) for more specific information.

Financial Aid as a Form of Payment

Please refer to MSCD's Web site (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

The primary mission of the Office of Alumni Relations and Alumni Association, located at 1020 Ninth Street Park is "*To cultivate relationships, motivate participation and create opportunities for a continuous connection with the College, its alumni and the community*."

The Alumni Office connects alumni to students and the college community through events, volunteer opportunities, mentoring programs, alumni chapters and annual giving opportunities with the purpose of maintaining and renewing personal relationships established during student days.

Several alumni programs and services are offered including: discounted insurance programs and career development resources, loan consolidation, credit union membership and free online transcripts. In addition, the Alumni Office sells the Metro State collegiate license plates that benefit student scholarships and alumni programs.

For a detailed list of programs, services and upcoming alumni events, visit www.mscd.edu/alumni.htm or contact the office directly at 303-556-8320.

Auraria Campus Police Department

The Auraria Campus Police Department 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 campuses in the state.

In addition to a police chief and 20 full time police officers, the Auraria Campus Police Department employs security guards 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 Auraria Campus Police Department also provides additional services to the campus community such as vehicle unlocks, crime prevention programs and emergency responses and fingerprinting.

The Auraria Campus Police Department 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 Early Learning 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

Central Classroom (CN) Room 203
303-556-3664
www.mscd.edu/~career

Career Services offers assistance to students and alumni in the following areas:

- Career counseling and career assessments — Individuals are assisted in clarifying their career interests and personality strengths as they relate to college majors and the world of work.
- Career library — The library includes print and electronic resources, job vacancies, salary surveys, graduate school information, and various career research resources. Consult with Career Services staff and learn to utilize an extensive set of electronic resources for career planning, searchable job databases and other job search tools.
- eChoices and CX Online programs — These online programs are comprehensive and easy to use databases that provide information on occupations, colleges, financial aid resources, individualized career planning and career assessments.
- www.mscd.edu/~career — Our Web site has a wealth of information about jobs and careers.

- Career workshops — These workshops provide information about resume writing, job search strategies, interviewing skills, image management and graduate school. Videotaped mock interviews are also available.
- Career events — Fairs and seminars are held throughout the fall and spring semesters. These events provide an opportunity to network with prospective employers and identify career opportunities. Information is available through the Career Services Web site, www.mscd.edu/~career.
- Online employment service — A customized online employment service for students and alumni. Post resumes and other job search documents and search through current full-time, part-time and internship postings for entry-level positions listed by employers specifically targeting Metro State. Come by Career Services to get registered today!

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 diverse exhibitions including artists of national and international significance, which otherwise would be unavailable to the College community and state populace. The CVA is a cornerstone of the N.A.S.A.D. accredited art department. Past exhibitions have included works by Sandy Skoglund, Picasso, Alfred Stieglitz, Romare Bearden and the art of Haiti, Australia and Japan. The center hosts MSCD's BFA Honors Thesis exhibition featuring the works of the College's outstanding art students and a biannual exhibition of the Metro art faculty.

Education and community outreach are important facets of the Center and students, including the Art Department's 1000 majors and 12,000 members of the general public visit the Center each year. Visitors take advantage of the many lectures, tours and workshops available in conjunction with the exhibitions. Outreach programs, providing art workshops and activities for Denver's at-risk youth are another element of the center's education program and commitment to the community. Work-study positions, internships and volunteer opportunities are only a few ways that Metro students can become involved at the center. Metropolitan State College of Denver's 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.

The Children's College

The Children's College 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 and CCD teacher education students also work in the classroom providing a high adult/child ratio with opportunities for small groups and individual attention.

The Summer Enrichment Program is academic in content, but recognizes children's needs for fun and different learning experiences in summer. Our class is for children entering first or second grade in the fall. Part time and full time schedules are available. Call 303-556-3132 for more information.

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 Coun-

seling 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.

Access Center for Disability Accommodations and Adaptive Technology

Providing equal opportunity is an important and shared responsibility at Metro State. The Access Center shares this responsibility by assisting students with documented disabilities in reaching their academic potential. Our office strives to accomplish this by providing qualified students with disabilities reasonable academic accommodations as mandated under ADA and Section 504 of the Rehabilitation Act. Disabilities served by our office include: ADD/ADHD, systematic illness, deaf/HOH, learning, cognitive, psychological, vision, and physical disabilities.

Students requesting accommodations need to contact the Access center and arrange an intake interview. Students will need to provide appropriate documentation that describes their diagnosed disability and current functional limitations. Based on the provided documentation, it will be determined which accommodations and/or services the student is eligible to receive. Examples of accommodations and services include: extended exam time, peer note takers, interpreters, alternative text, priority registration and disability counseling and advocacy.

The Access center provides eligible students with access to some of the latest adaptive technology. Approved students will receive training and access to a variety of hardware and software products in our computer lab area. Software available for use includes JAWS, Dragon Naturally Speaking, ZoomText and TextHelp Read&Write.

The Access center is located in the Auraria Library, Suite 116. For further information, call 303-556-8387 or access the Web site at www.mscd.edu/~access.

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 bureau 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 are welcomed. For additional information call 303-556-6333, visit www.glbtss.org or email info@glbtss.org.

Health Center at Auraria

All MSCD students have access to medical services at the Health Center. Student health insurance is **NOT** required in order 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. 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 call for an appointment or walk 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 Web site 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 Program

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

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 Access Center, Library Room 116. The computer lab currently has software to assist students with hearing, learning, visual and orthopedic disabilities. Further information is available at www.msce.edu/~access; 303-556-8387 (Access Center).

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 e-mail 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 or through the MSCD Center for Technology Services at 303-556-8325.

International Student Services

MSCD 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. International students should contact the Academic Advising Center.

Please see International and Intercultural Education on page 54 of this *Catalog*.

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 MSCD. The office is located in Central Classroom, Room 102. For information call 303-556-4023.

Metro North and Metro South

Please see **Extended Campus** on page 6 and page 35 of this *Catalog*.

Short-Term Emergency Student Loan Program

The Short-Term Emergency Student Loan program offers short-term (30-day) interest-free loans to eligible MSCD students up to $210.00/semester. Applications are available at the Scholarship Center in the Central Classroom, room 120D, Monday-Friday from 8 a.m. to 5 p.m. Additional information, including qualifying criteria, procedures for submission and online applications, is available on our Web site (www.mscd.edu/student/resources/sfrc); or contact the Short-Term Loan office in the Scholarship Center at 303-352-4247.

Student Travel Program

The Student Travel program awards travel grants to eligible student organizations and individual students attending and/or presenting papers at educational conferences within the domestic United States. Detailed information, including student travel guidelines, proposal submission schedule, qualifying criteria and online applications, is available on our Web site (www.mscd.edu/student/resources/sfrc). Contact the Student Travel Program in the Central Classroom Building, Room 313, or call 303-556-3908 or 303-556-5026.

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 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 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. 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.

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 Colo-

rado at Denver. Other MSCD offices located here include the Tutoring Center, 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 the GLBT at the Student Union.

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, St. Francis, St. Cajetan's and the P.E. Event Center, 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 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 Tivoli on the second floor, Room 219. Students may also access on-line tutoring services through Smarthinking.com by logging onto MetroConnect and clicking on the Student Tab. For information call 303-556-4054 or 303-556-6439.

Veterans Services

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

Veterans Upward Bound

Veterans Upward Bound is a federally funded 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, 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 contribu-

tions 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. These co-curricular programs include educational, cultural, recreational and social interaction as well as unique opportunities for leadership development. To learn more about these services, visit our offices located in the Tivoli Student Union, Room 311 or call 303-556-3559. Our Web site is http://www.mscd.edu/~studlife.

In addition, the Office of Student Life also administers the following programs:

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

Student Problem Action Network (SPAN) - The SPAN Program is a network of volunteer advisors who help students resolve problems they may be experiencing with faculty, staff or other students in the MSCD classroom or workplace. Advisors are there to: help sort out the facts in a given situation, identify specific issues and concerns, recognize the perspective of others involved in a situation, articulate options for resolution, formulate strategies for resolving the situation, help navigate campus systems and advise the student on how to implement the chosen strategy.

Outstanding Student and Who's Who Awards - The Office of Student Life partners with academic departments and hosts the annual college-wide Outstanding Student Awards and the selection of nominees for Who's Who in American Universities and Colleges.

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 in the Tivoli Student Union, Room 305, 303-556-2595. Office hours are 8 a.m.–5 p.m., Monday through Friday.

Student Government Assembly

Metropolitan State College Student Government Assembly is an elected body that exists to represent and act in the interests of the students. Student Government Assembly (or SGA) works to create opportunities for student involvement and success through its programs, and works to sustain and improve them each year. SGA includes three additional elected representatives: the Board of Trustees Student Representative and the two representatives to the Student Advisory Committee to the Auraria Board (SACAB). Together the assembly works to ensure that students' voices are heard and represented in all

levels of the College's administration. The SGA offices are located in the Tivoli Student Union, Room 307, phone number 303-556-3312. Our Web site is http://www.mscd.edu/~sga.

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. *Metrosphere* also produces an interactive multimedia CD-ROM containing further art, poetry and writing. It is written, composed and produced entirely by students. Submissions are accepted during the fall semester. Copies are distributed free to students and are available in Tivoli Room 313. For more information, call the student editor at 303-556-3940.

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

The office also produces the Student Handbook and provides graphic art services at reduced costs to on-campus offices, departments, organizations and individuals. To access all online student publications, go to http://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 weight room, 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 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, or 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 at MSCD. 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 (AP) examinations conducted by the College Entrance Examination Board may have official 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 8 credit hours at MSCD (see following chart). Students should contact www.collegeboard.com or 888-225-5427 to request official AP scores; MSCD's AP code is 4505.

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 1050-4	CSI 1050-4 CSI 2050-4	CSI 1050-4 CSI 2050-4
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
Gov't & Politics (U.S.)		PSC 1010-3	PSC 1010-3	PSC 1010-3
Gov't & Politics (Comparative)		PSC 1020-3	PSC 1020-3	PSC 1020-3
History (European)		HIS 1010-3	HIS 1010-3 HIS 1020-3	HIS 1010-3 HIS 1020-3
History (American)		HIS 1210-3	HIS 1210-3 HIS 1220-3	HIS 1210-3 HIS 1220-3

AP SCORE	2	3	4	5
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
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
History (American)		HIS 1210-3 HIS 1220-3	HIS 1210-3 HIS 1220-3	HIS 1210-3 HIS 1220-3
History (European)		HIS 1010-3	HIS 1010-3 HIS 1020-3	HIS 1010-3 HIS 1020-3
History (World)		HIS 1030-3	HIS 1030-3 HIS 1040-3	HIS 1030-3 HIS 1040-3
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 2030-1 PHY 2020-4 PHY 2040-1	PHY 2010-4 PHY 2030-1 PHY 2020-4 PHY 2040-1	PHY 2010-4 PHY 2030-1 PHY 2020-4 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
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
Statistics		MTH 1210-4	MTH 1210-4	MTH 1210-4

INTERNATIONAL BACCALAUREATE

MSCD recognizes the high level of achievement that the International Baccalaureate (IB) Diploma Program represents. Students who complete the IB Diploma Program and the IB examinations are guaranteed admission to the College and are eligible to receive credit and advanced placement standing. To receive credit, a student must receive at least a score of four (4) on each IB examination and call 212-696-4464 to request that official scores be mailed directly to the Office of Admissions from the IB organization. For specific equivalencies, see the table below. Please contact the Office of Admissions at 303-556-3058 for more information. Students should consult with the appropriate department for further advising and with their major departments about acceptance of credits toward their majors.

INTERNATIONAL BACCALAUREATE TRANSFER CREDIT AWARD

IB Exam	Level of Exam	Exam Score	MSCD Equivalence	Semester Hours	MSCD General Studies Area
Anthropology	Higher	4 thru 7	ANT 1310 w/ 3 hrs elective	6	Social Sciences
	Standard	4 thru 7	Anthropology elective	3	Social Sciences
Art-Design A	Higher	4 thru 7	ART 1200 w/ 3 hrs elective	6	
	Standard	4 thru 7	ART 1200-3	3	
Art-Visual	Higher	4 thru 7	Art elective	6	
	Standard	4 thru 7	Art elective	3	
Biology	Higher	5 thru 7	BIO 1080-3, BIO 1090-1 w 2 hrs elective	6	Natural Sciences
	Higher	4	Biology elective	6	
	Standard	4 thru 7	BIO 1000-3	3	Natural Sciences
Chemistry	Higher	4 thru 7	CHE 1100-4, CHE 1150-1 w/ 1 hr elective	6	Natural Sciences
	Standard	4 thru 7	CHE 1010-3	3	Natural Sciences
Computer Science	Higher	4 thru 7	CMS 1010-3 w/ 3 hrs elective	6	
	Standard	4 thru 7	CMS 1010-3	3	
Economics	Higher	4 thru 7	ECO 2010-3 w/ 3 hrs elective	6	Social Sciences
	Standard	4 thru 7	Economics elective	3	Social Science
English (A-1)	Higher	4 thru 7	ENG 1010-3, ENG 1100-3	6	Composition - 3
					Arts & Letters - 3
Foreign Lang (A1) French, German, Spanish	Higher	4 thru 7	FRE 3110-3 & FRE 3320-3 or GER 3010-3 & GER 3210-3 or SPA 3110-3 & SPA 3250-3	6	
	Standard	4 thru 7	FRE, GER, SPA 1010-5, 1020-5	10	Communications
Foreign Lang (B)	Higher	4 thru 7	FRE 2010-3 & FRE 2020-3 or GER 2110-3 & GER 2120-3 or SPA 2110-3 & SPA 2120-3	6	
	Standard	4 thru 7	FRE, GER, SPA 1010-5, 1020-5	10	Communications
Geography (Environmental Sys)	Higher	4 thru 7	ENV 1200-3 w/ 3 hrs elective	6	Natural Sciences
	Standard	4 thru 7	Environmental elective	3	Natural Sciences

IB Exam	Level of Exam	Exam Score	MSCD Equivalence	Semester Hours	MSCD General Studies Area
History of Africa	Higher	4 thru 7	History elective	6	Historical
	Standard	4 thru 7	History elective	3	Historical
History of Americas	Higher	4 thru 7	History elective	6	Historical
	Standard	4 thru 7	History elective	3	Historical
History of Europe	Higher	4 thru 7	HIS 1010-3, HIS 1020-3	6	Historical
	Standard	4 thru 7	HIS 1010-3	3	Historical
Japanese	Higher	4 thru 7	Modern Languages elective	6	
	Standard	4 thru 7	Modern Languages elective	3	
Latin	Higher	4 thru 7	Modern Languages elective	6	
	Standard	4 thru 7	Modern Languages elective	3	
Mathematics*	Higher	5 thru 7	MTH 1410-4	4	Mathematics
	Higher	4	MTH 1400-4	4	Mathematics
Math Methods*	Standard	5 thru 7	MTH 1110-4	4	Mathematics
	Standard	4	Mathematics elective	3	Mathematics
Math Studies*	Standard	4 thru 7	Mathematics elective	3	Mathematics
Physics	Higher	4 thru 7	PHY 2010-4, PHY 2020-4, PHY 2030-1, PHY 2040-1	10	Natural Sciences
	Standard	4 thru 7	PHY 1000-4	4	Natural Sciences
Psychology	Higher	4 thru 7	PSY 1001-3 w/ 3 hrs elective	6	Social Sciences
	Standard	4 thru 7	Psychology elective	3	Social Sciences
Russian	Higher	4 thru 7	Modern Languages elective	6	
	Standard	4 thru 7	Modern Languages elective	3	
Theater	Higher	4 thru 7	THE 2210-3 w/ 3 hrs elective	6	Arts & Letters
	Standard	4 thru 7	Theater elective	3	Arts & Letters

*See Math Department for further advising.

COLLEGE-LEVEL EXAMINATION PROGRAM (CLEP)

The College Level Examination Porgram (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 CLEP examinations that are accepted at MSCD, the College may award up to 30 credits toward the General Studies requirements. Thus, students 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 through the use of CLEP examinations.

MSCD does not allow CLEP to be used for ENG 1020, Freshman Composition: Analysis, Research and Documentation.

No more than 60 credits may be earned through all the approved CLEP 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 requirements unless otherwise stated.
- Credit earned will be entered on the student's transcript with the title of the examination(s) and without reference to any 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 toward residency credit requirements and therefore may not be awarded as part of the last 12 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 have CLEP examination or military examination (DANTES) results evaluated, the student should have a copy of the official score report sent to, Metropolitan State College of Denver, Office of Admissions, Campus Box 16, P.O. Box 173362, Denver, CO 80217-3362. To request an official CLEP score report, contact www.collegeboard.com/clep or 800-257-9558. MSCD's CLEP code is 4505. DANTES test scores can be obtained by calling 850-452-1063.
- 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 The College 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 student's academic dean's office.
- 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 six months after the date of the previous examination.

For advising assistance with CLEP examinations and information about departmental credit by examination and portfolio assessment, students may contact the Center for Individualized Learning, Central Classroom Building, Room 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.com/clep. Examinations may be taken through the Community College of Denver Test Center, 303-556-3810, South Classroom Building 223. Other official testing centers can be found through the College Board Web site listed above.

CLEP EXAMINATION STANDARDS

CLEP exam	Minimum Score for MSCD Credit	MSCD Credit	MSCD General Studies	No Credit for Prior Enrollment[2]
American Government	56	3	Social Sciences	PSC 1010
American Literature	55	3	*	ENG 2210, 2220
Analysis and Interpretation of Literature[1]	60	3	Arts & Letters	ENG 1100,1110, 1120
English Composition with Essay	50	3	Freshmen Composition	ENG 1010[1]
English Literature	55	3	*	ENG 2310, 2330
French Language	50	10	Communications	FRE 1010, 1020
French Language	62	16	Communications	FRE 1010, 1020, 2010, 2110
General Biology	57	3	Natural Sciences	BIO 1000
Calculus	54	3	Mathematics	MTH 1110, 1120, 1400, 1410
College Algebra	54	3	Mathematics	MTH 1110[4]
College Algebra-Trigonometry	54	3	Mathematics	MTH 1110, 1120, 1400[4]
College Mathematics	50	3	Mathematics	MTH 1080
General Chemistry	63	4	*	CHE 1800
General Chemistry	69	8	*	CHE 1800, 1810
German Language	50	10	Communications	GER 1010, 1020
German Language	63	16	Communications	GER 1010,1020, 2110, 2310
History of the US I	55	3	Historical	HIS 1210
History of the US II	56	3	Historical	HIS 1220
Humanities	50	6	Arts & Letters	ART 1040, MUS 1000, ENG 1100, 1110 or ENG 1120
Human Growth and Development[3]	60	3	*	PSY 2210

**Does not meet general education requirements*

[1]Although the examinations are essentially independent, where there is overlap, 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 any course(s) in column 5, 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 coursework 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 wishing to take Calculus I at MSCD must first pass MSCD's departmental calculus placement exam.

CLEP EXAMINATION STANDARDS

CLEP exam	Minimum Score for MSCD Credit	MSCD Credit	MSCD General Studies	No Credit for Prior Enrollment[2]
Introductory Psychology[1,3]	60	3	*	PSY 1001
Introductory Sociology[1]	58	3	Social Sciences	SOC 1010
Information Systems and Computer Applications	66	3	*	CMS 1010, CSS 1010
Principles of Macroeconomics[1]	62	3	Social Sciences	ECO 2010
Principles of Marketing	62	3	*	MKT 3000
Principles of Microeconomics	61	3	Social Sciences	ECO 2020
Principles of Management	50	3	*	MGT 3000
Natural Sciences[1]	50	6	Natural Sciences	BIO 1000, AST 1040, CHE 1010, GEL 1010, PHY 1000
Social Science and History[1]	50	6	Social Sciences	ECO 2010, HIS 1000, PSC 1010, PSY 1001, SOC 1010
Spanish Language	50	10	Communications	SPA 1010, 1020
Spanish Language	66	16	Communications	SPA 1010, 1020, 2110, 2120
Trigonometry	54	3	Mathematics	MTH 1110, 1120[4]
Western Civilization	58	3	Historical	HIS 1020
Western Civilization II	57	3	Historical	HIS 1020

**Does not meet general education requirements*

[1]Although the examinations are essentially independent, where there is overlap, 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 any course(s) in column 5, 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 coursework 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 wishing to take Calculus I at MSCD must first pass MSCD's 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 it does not reduce 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 Credit by Examination

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 by 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 dean's offices in each school.

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 course 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, which is offered as a correspondence course.

Policies that 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 in-state 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 Web site: 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 (ACE) 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 or DD-295 should be submitted to the Office of Admissions. In addition, students with Army training should request that an official AARTS transcript be mailed directly to the Office of Admissions by calling 866-297-4427; those with Air Force training should request an official Community College of the Air Force transcript by calling 334-953-2794. Students with training from the Navy or Marines should request an official SMART transcript by calling 877-253-7122. For all other training, request official ACE transcripts by calling 202-939-9434. 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 Web site for additional information: www.mscd.edu/~cooped.

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. A students who completes 27 semester hours of honors courses, including a thesis, will receive an honors designation on his/her transcript.

An Honors application form may be obtained from the Honors Program Director. Since the Honors Program participates in the Colorado Scholarship Program, any student admitted to the Honors Program is 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 COURSES	SEMESTER HOURS
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
Subtotal	9
Students must take at least nine (9) hours from the following:	
HON 2800 History of 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

Subtotal. 9
Electives
Honors students must choose three (3) elective courses with an Honors prefix in consultation with the Honors Program Director.
Subtotal. 9
Total 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* do not 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 works 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 their proposals early in their enrollment at MSCD. IDP proposals must be submitted no later than the semester prior to the semester the student intends to graduate.

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 the first step in the process, and are held throughout the year.

Each Individualized Studies major or minor is 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 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 and may not include courses with the same prefix as the department from which the majority of credit is drawn for their major, or courses crosslisted with that discipline.
- No more than 30 hours of credit from the School of Business may be included in the student's degree plan.
- 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.

INTERNATIONAL & INTERCULTURAL EDUCATION

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. Through the following programs students and faculty have opportunities to develop and participate in activities designed to promote a greater understanding and expertise in global issues. MSCD seeks to maintain a positive environment that enhances the learning experiences of international students.

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 collaboration with a faculty mentor and the Center for Individualized Learning, 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, and see www.mscd.edu/~cil/.

Study Abroad Courses

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

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

Contact the Office of the Vice President for Academic Affairs for information regarding the latest offerings.

International Student Services

MSCD provides a variety of services to international students attending the College. 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. International students should contact the Academic Advising Center.

Special Events

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

Community Connections

MSCD 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 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

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, 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 www.state.co.us/cche/gened/gtpathways/index.pdf. 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:

1. Have an open attitude toward different approaches to problems;
2. Have an informed awareness of the principal human achievements in history, arts and letters, society, and science; and
3. 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 human 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:

Level I*

CATEGORY	SEMESTER HOURS
Composition	6
Mathematics	3
Communications	3

Level II**

CATEGORY	SEMESTER HOURS
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 at least "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)

	REQUIRED COURSES	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 course work.
- 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)

	REQUIRED COURSES		SEMESTER HOURS
	MTH 1080 (GT-MA1)	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.	3

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 course work 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 requirement if they:
  - ⇒ a mathematics course that has been approved for Level I mathematics credit (see courses listed above), or
  - ⇒ 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 prerequsite, 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)*

	REQUIRED COURSES		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 course work, or more advanced course work 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 1603 3
	HIS 1020/HON 1020 (GT-HI1)	Western Civilization since 1603 3
ao	HIS 1030 (GT-HI 1)	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
ao/mc	HIS 3090	Native Americans in American History 3
	HIS 3120	Medieval History 3
	HIS 3140	Renaissance & Reformation 3
	HIS 3310	England to 1714 3
	HIS 3320	England since 1714 3
mc	HIS 3590	American Immigration History 3
	HIS 3700	Modern China 3
	HIS 3740	Modern Japan 3

	HIS 3760	Modern Middle East	3
	HIS 3770	World of Islam	3
	HIS 3810	Latin America: Republics	3
mc	HIS 4110/HON 3850	American Culture I	3
	HIS 4120/HON 3860	American Culture II	3

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

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

Please note: "mc" indicates that the course is also approved as a Multicultural course; "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
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 (GT-AH2)	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 for Non-Majors	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
	LAS 2850	Introduction to Cinema Studies	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
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
	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 3080	Great American Speakers	3
ao	SPE 3740	Psychology of Communication	3
ao/mc	SPE 3760	Cultural Influences on Communication	3
	THE 2210 (GT-AH1)	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 the course is available online.

SOCIAL SCIENCES (minimum 6 semester hours)*

Social Sciences 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
ao/mc	AAS 2100/CHS 2100/ ICS 2100/NAS 2100/WMS 2100	Women of Color	3
mc	AAS 2200/PSC 2200	Politics & Black People	3
mc	AAS 3300/SOC 3140	The Black Community	3
	AAS 3550/SOC 3440	The Black Family	3
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
ao/mc	ANT 3480	Cultural Diversity in Health & Illness	3
ao/mc	CHS 1000	Introduction to Chicana/o Studies	3
ao/mc	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
	ECO 1040	A Citizen's Guide to Economics	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 U.S., 1945-1990s	3
ao/mc	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
	HON 3810	Revolutions & Social Change II	3
	HPS 2720	Fundamentals of Coaching	2
ao/mc	HSP 3490	Multicultural Issues in Human Services	4
mc	ICS 1000	Introduction to Asian American Studies	3
ao/mc	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
ao/mc	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
ao	PSC 1040	A Citizen's Guide to Economics	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 (GT-SS3)	Psychology of Human Development	3
	PSY 3250	Child Psychology	3
	PSY 3260	Psychology of Adolescence	3
ao/mc	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
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
ao/mc	WMS 2100/AAS 2100/ CHS 2100/ICS 2100/NAS 2100	Women of Color	3
mc	WMS 3220/SOC 3220	Race, Gender & Ethnic Groups	3

*A one-hour deviation in the General Studies Social Sciences 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	Introduction to Astronomy 3
	AST 3040	Modern Cosmology 3
ao/sp	BIO 1000	Human Biology for Non-Majors 3
sp	BIO 1010	Ecology for Non-Majors 3
ao/sp	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** (GT-SC1)	Principles of Chemistry 4
	CHE 1150** (GT-SC1)	Principles of Chemistry Laboratory 1
	CHE 1850 & either CHE 1800 or 1810***	General Chemistry I or II 6
	CHE 3100	Organic Chemistry I 4
	CHE 3120	Organic Chemistry I Lab 2
	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	Complementary and Alternative Medical Therapies 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	Weather and Climate 3
	MTR 3500	Hazardous Weather 3
ao	NUT 2040	Introduction to Nutrition 3
ao/sp	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 Requirements (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. This educational concept must be generalized to include a multicultural perspective in view of the origins of the United States and the future responsibilities facing all United States citizens. Multicultural education will help the MSCD academic community realize that the acceptance of diversity can increase creativity and performance potential in positive ways and enrich lives through an understanding of cultural similarities, commonalites, and differences. Through exposure and understanding, fear will be alleviated and appreciation and respect can develop. The guided study of cultural diversity should inform students that the curriculum itself is influenced and created by members of all cultural groups.

Multicultural educational experiences or offerings examine the interactions of values and beliefs, traditions, identities, and contributions of cultural and ethnic minorities in the U.S.: Native Americans, African Americans, Hispanic Americans, and Asian Americans; which may include groups within these minorities characterized by gender, sexual orientation, age or disability.

Transferability of Multicultural Credits

Transfer credits to meet the multicultural requirement will be accepted under the following guidelines:

1. Transferable courses taken at an accredited institution to meet a multicultural or similar diversity requirement will satisfy the MSCD multicultural requirement.
2. Transferable courses equivalent to an existing multicultural course will satisfy the MSCD multicultural requirement. Equivalency will be determined by the department offering the course. Once a course has been approved by a department, it will be given the status of an approved transferable multicultural course. Examples of courses currently meeting this criterion appear in the table below. (Named Examples of Multicultural Equivalencies)

3. If a transferable course is interdisciplinary, MSCD transfer evaluators will consult with the department(s) where the majority of the content resides.
4. A one-hour deviation in the multicultural requirement will be allowed for courses judged to be similar in content to an existing MSCD multicultural course. Equivalency will be determined by the department offering the multicultural course.
5. Full credit or a one-hour deviation in the multicultural requirement will be allowed when the transferable course meets MSCD's multicultural definition and course criteria, although a similar course is not offered at MSCD. Example: Macroculture Studies and Asian American Studies – Chinese American or Japanese American.
6. If Transferable courses do not clearly meet MSCD's multicultural definition, transfer evaluators may request an opinion from the Faculty Senate Curriculum Committee and/or the Academic Affairs Curriculum Office. Should the question not be resolved, the student may follow the appeal process as set forth in the MSCD Transfer Guide.

Examples of Multicultural Equivalencies

Community College Course	MSCD Substitute
ANT 215 (CMC)	ANT 3310* – Ethnography of North American Indians
CHS 100 (or HIS 205 at Trinidad) (or HUM 115 at Denver) (or MAS 105 at Aims)	CHS 1000 – Introduction to Chicano Studies
CHS 101 or MAS 161	CHS 1010 (or HIS 1910) – History of Meso-America: Pre-Columbian and Colonial Periods
CHS 102 or MAS 162	CHS 1020 (or HIS 1920) – History of the Chicano in the Southwest: 1810 to Present
EDU 162 or EDU 235 (or EDU 211 or ACC)	EDU 2640 – Urban and Multicultural Education
ANT 215 (Pueblo)	NAS 1000 – Introduction to Native American Studies
GNT 201 or GPM 100 or SOC 201	SOC 1040 – Introduction to Social Gerontology

**This course, although substituting for a MSCD upper-division course, is awarded lower-division credit only; i.e., will not apply toward the minimum upper-division credit requirements of a MSCD degree.*

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.

MSCD Multicultural Courses

hi - Historical; al - Arts and Letters; ss - Social Science; se - Senior Experience

ss	AAS 1010	Introduction to African American Studies	3
hi	AAS 1130/ HIS1940	Survey of African History	3
ao,ss	AAS 2100/CHS 2100/ICS 2100/ NAS 2100/WMS 2100	Women of Color	3
hi	AAS 2130/HIS 2950	West African Civilizations	3
ss	AAS 2200/PSC 2200	Politics & Black People	3

MSCD Multicultural Courses

	hi - Historical; al - Arts and Letters; ss - Social Science; se - Senior Experience		
al	AAS 3240/ENG 3240	African American Literature	3
ss	AAS 3300/SOC 3140	The Black Community	3
	AAS 3700/CHS 3700/PSY 3700/WMS 3700	Psychology of Group Prejudice	3
ss	ANT 2330	Cross-Cultural Communication	3
ss	ANT 3310	Ethnography of North American Indians	3
ao,ss	ANT 3480	Cultural Diversity in Health and Illness	3
al	ART 3090	Art & Cultural Heritage	3
ao,ss	CHS 1000	Introduction to Chicana/o Studies	3
hi	CHS 1010/HIS 1910	History of Meso-America: Pre-Columbian & Colonial Periods	3
hi	CHS 1020/HIS 1920	History of the Chicana/o in the Southwest: 1810 to Present	3
ao,ss	CHS 2100/AAS 2100/ICS 2100/ NAS 2100/WMS 2100	Women of Color	3
ss	CHS 3100/SOC 3130	The Chicana/o Community	3
	CHS 3200/CJC 3720	Chicanos and the Law	3
	CHS 3700/AAS 3700/ PSY 3700/WMS 3700	Psychology of Group Prejudice	3
	CJC 3720/CHS 3200	Chicanos and the Law	3
	ECE 2340	Foundations of Early Childhood Education	3
ss	ECE 4360	Cultural Influence on the Socialization of Children	3
ss	EDS 3110	Processes of Education in Multicultural Urban Secondary Schools	3
ao	EDU 3100	Social Foundations & Multicultural Education	4
	ENG 2240	Native American Literatures	3
al	ENG 3240/AAS 3240	African American Literature	3
ss	GEG 3300/NAS 3300/PSC 3300	Land Use, Culture & Conflict	3
	HES 3310	Introduction to Traditional Chinese Medicine	3
hi	HIS 1910/CHS 1010	History of Meso-America: Pre-Columbian & Colonial Period	3
hi	HIS 1920/CHS 1020	History of the Chicana/o in the Southwest: 1810 to Present	3
hi	HIS 1940/AAS 1130	Survey of African History	3
hi	HIS 2950/AAS 2130	West African Civilizations	3
ao,hi	HIS 3090	Native Americans in American History	3
hi	HIS 3590	American Immigration History	3
hi	HIS 4110/HON 3850	American Culture I	3
ao,ss	HMT 1850	Multicultural/Multinational Adjustment/Readjustment	3
hi	HON 3850/HIS 4110	American Culture I	3

MSCD Multicultural Courses

	hi - Historical; al - Arts and Letters; ss - Social Science; se - Senior Experience		
ao,ss	HSP 3490	Multicultural Issues in Human Services	4
ss	ICS 1000	Introduction to Asian American Studies	3
ao,ss	ICS 2100/AAS 2100/CHS 2100/ NAS 2100/WMS 2100	Women of Color	3
se	MGT 4830/WMS 4830	Workforce Diversity	3
al	MUS 3000	Musics of America	3
al	MUS 3020	Jazz Styles–America's Music	3
al	MUS 3050	Musics of the World	3
ss	NAS 1000	Introduction to Native American Studies	3
ao,ss	NAS 2100/AAS 2100/ICS 2100/ CHS 2100/WMS 2100	Women of Color	3
ss	NAS 3200/PSC 3200	Native American Politics	3
ss	PSC 3300/GEG 3300/NAS 3300	Land Use, Culture & Conflict	3
ss	PSC 2200/AAS 2200	Politics & Black People	3
ss	PSC 3200/NAS 3200	Native American Politics	3
ss	PSC 3300/GEG 3300/NAS 3300	Land Use, Culture & Conflict	3
	PSY 3170/WMS 3170	Multicultural Service Learning	3
	PSY 3700/AAS 3700/PSY 3700/ AAS 3700/	Psychology of Group Prejudice	3
ao,ss	SED 2200	Diversity, Disability and Education	3
ss	SOC 1040	Introduction to Gerontology	3
ss	SOC 3130/CHS 3100	The Chicana/o Community	3
ss	SOC 3140/AAS 3300	The Black Community	3
ss	SOC 3220/WMS 3220	Race, Gender & Ethnic Groups	3
ao,al	SPE 3760	Cultural Influences on Communication	3
ao,ss	WMS 2100/AAS 2100/ICS 2100/NAS 2100/CHS 2100	Women of Color	3
	WMS 3170/PSY 3170	Multicultural Service Learning	3
ss	WMS 3220/SOC 3220	Race, Gender & Ethnic Groups	3
	WMS 3700/AAS 3700/CHS 3700/PSY 3700	Psychology of Group Prejudice	3
se	MGT 4830/WMS 4830	Workforce Diversity	3
	XXX 1190	*First Year Seminar	3

*variable course prefixes, ANT, CHS, CJC, ENG, HON, HPL, PSC, RGD, SOC, SPE, SWK, WMS

Senior Year Assessment Examinations and Other Activities

In their senior year, students may be required to participate in an assessment of their 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.

Senior Experience Graduation Requirements (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: 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.

	AES 4930	Professional Flight Standards Seminar 3
	AES 4950	Aviation and Aerospace Science Management Strategies 3
	ART 4010	Art Theory and 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 Develpmnt & Thesis Show 3
	ART 4751	Communication Design Senior Experience: Portfolio Development 3
	ART 4758	Senior Thesis in Art. 3
	BIO 4510	Microbial Ecology. 4
	BIO 4540	Plant Ecology 4
	BIO 4850	Evolution 3
	CET 4130	Soil Mechanics 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 Media 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 & Sem.: Early Childhd (Preschool-3rd Grd) . 6,12
ao	ECO 4600	History of Economic Thought. 3
	EDS 4290	Student Teaching and Seminar: Secondary 7–12 6,12
	EDU 4190	Student Teaching and 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
	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. 3

	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 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 4611	Computational Physics I	2
	PHY 4620	Computational Physics II	2
	PHY 4711	Advanced Physics Laboratory I	2
	PHY 4721	Advanced Physics Laboratory II	2
	PHY 4921	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 4440	Assessment, Instruction & Collaboration Practicum: Secondary	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.

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 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 Admissions Office.

Curriculum, Advising and Program Planning (CAPP)

CAPP produces a Compliance Report that is an advising tool to be used by students and their advisors throughout the students' academic career at MSCD. Students with declared majors and/or minors should discuss their progress toward 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 or by logging on to MetroConnect (http://metroconnect.mscd.edu). 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 Degree 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 Web site (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, another Application for Graduation must be submitted for a subsequent semester.

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, or at www.mscd.edu.

Transcript of Records

An official transcript is a certified copy of a student's permanent academic record. Transcripts are free. You can order transcripts by logging on to MetroConnect (http://metroconnect.mscd.edu). 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. Copies of transcripts from other institutions that are on file in the Registrar's Office will be issued upon signed request by the student. 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 through the criminal justice system those who commit these crimes.

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. Honors will only be computed three times in a student's academic life at the College. 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 – College Level Examination Program (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

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

SN – Study Abroad - no credit

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 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.
- During this period, students may request an NC ONLY online at MetroConnect.
- 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 12th day of classes for fall and spring, the eighth day of classes for summer or the second day of classes for parts-of-term of any semester (see the Academic Calendar on MSCD's Web site (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 whether those guidelines and deadlines are established college wide or by individual schools or departments

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. Additionally, it is the student's responsibility to ensure that the course is not in their major, minor or General Studies.

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 effect the grade change, the student must re-register and pay the full tuition for the class in question, complete the class 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 prior to graduation. 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 that 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 grade change will be made administratively prior to graduation. 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 toward 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 fourth 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 are final.

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

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

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 *College Catalog* must be followed by students currently enrolled for the 2005 fall semester and the 2006 spring and summer semesters.

The procedures and policies contained in this section are subject to change, as the College deems necessary. If you have a concern, please check with the appropriate office. An abbreviated version of the policies and procedures are contained in this section. For the complete *Students Rights and Responsibilities,* you may access the Web at http://handbook.mscd.edu/index2.html 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://handbook.mscd.edu/index2.html.

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 that will be most conducive to the goals of higher education within the institution.

Students, while within College facilities or while participating in College sponsored activities (on-campus and/or off-campus), are expected to comply with College rules and regulations and with the regulations of off campus 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 policymaking, 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 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://handbook.mscd.edu/index2.html.

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

Members of the College community, whether faculty members or administrative staff, put academic and professional trust and ethics at risk when they engage in amorous romantic/sexual relationships with people whose academic and/or professional benefits and opportunities are, or appear to be, subject to their authority, supervision or influence. Accordingly, the College prohibits such relationships, as well as any attempt to initiate or engage in such relationships. Any faculty member or administrator who engages in, or attempts to engage in, an amorous relationship with a student or subordinate shall report any such relationship or attempt to the EEO Officer.

Sexual harassment of an employee or student will lead to disciplinary action. In the case of an employee, such discipline may include termination. In case of students, such discipline may include expulsion.

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 on MSCD's Web site (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

Metropolitan State College of Denver is an equal opportunity employer; applications from minorities and women are particularly invited. Metropolitan State College of Denver does not discriminate on the basis of race, color, creed, national origin, sex, age, sexual orientation or disability in admissions or access to, or treatment or employment in, its educational programs or activities. Inquiries concerning the College grievance procedures may be directed to the designated MSCD officials. Inquiries concerning Title VI and Title IX may be referred to Dr. Percy Morehouse, Jr., MSCD Office of Equal Opportunity, Campus Box 63, P.O. Box 173362, Denver, CO 80217-3362, 303-556-2939. Inquiries concerning the Americans with Disabilities Act (ADA) or 504 may be referred to Ms. Helen Fleming, Faculty and Staff ADA Coordinator, MSCD, Campus Box 47, P.O. Box 173362, Denver, CO 80217-3362, 303-556-8514; Student ADA Coordinator, 303-556-2761; Ms. Lisa McGill, Director Disability Services Office, AHEC, Campus Box 001, P.O. Box 173361, Denver, CO 80217-3361, 303-556-8387. Otherwise, all inquiries may be referred to the Office for Civil Rights, U.S. Department of Education, 1244 Speer Boulevard, Denver, CO 80204, 303-844-3723.

Family Educational Rights and Privacy Act

Student Rights

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

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

Procedure for Inspecting and Reviewing Educational Records

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

A. The request shall identify as precisely as possible the record or records the student wishes to inspect.
B. The record custodian or an appropriate staff person shall make the arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. Access must be given within 45 days 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 that 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. 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, 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. 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 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 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
> 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 2000, 2001, 2002 and 2003, the following crimes were committed on campus at the Auraria Higher Education Center, serving the University of Colorado at Denver, Metropolitan State College of Denver and the Community College of Denver:

CRIMINAL OFFENSES—On campus locations only

	2000	2001	2002	2003
Murder/Non-Negligent Manslaughter	0	0	0	0
Forcible Sex Offenses (inc. forcible rape)	3*	1	0	0
Non-Forcible Sex Offenses	0	0	0	0
Robbery	0	2**	1	1
Aggravated Assault	3	1	3***	5
Burglary	3	9	3	7
Motor Vehicle Theft	9	5	15	9
Arson	0	0	0	1
Negligent Manslaughter	0	0	0	0
Other Hate Crimes Involving Bodily Injury	0	0	0	0

*Forcible rape - one attempt - 2 completed
**One offense, two victims; business & individual
***Two offenses, three victims

ARRESTS—On Campus Locations Only

	2000	2001	2002	2003
Liquor Law Violations	2	1	0	1
Drug Law Violations	28	21	13	21
Illegal Weapons Possessions	5	1	2	1

the School of Business

We educate Denver's business workforce.

METROPOLITAN STATE COLLEGE *of* DENVER

SCHOOL OF BUSINESS

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

The school 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 58 full-time faculty, more than 60 part-time faculty and 8 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.

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.

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 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.*

The school offers degrees in six majors:

Bachelor of Science Degree Programs

- Accounting
- Computer Information Systems
- Finance (General Finance, Financial Services)
- Management
- Marketing

Bachelor of Arts Degree Program

- Economics

In addition, we offer an International Business Concentration for business majors and a total of nine minors designed for non-business majors.

The various educational opportunities available through the School of Business are listed on the next page. Course descriptions and prerequisites are found beginning on page 307 of this *Catalog*.

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.

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 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 of Science 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.

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:

- 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.

Program Requirements

All candidates for a Bachelor of Science degree in accounting must satisfy the General Studies requirements, the business core course requirements, and the School of Business requirements described in the following sections. The basic structure of the accounting program is:

COURSES	SEMESTER HOURS
General Studies (Level I and Level II)	34
Business Core	33
School of Business requirements	9
Major in Accounting	24
Electives*	20
Total Hours (minimum)	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

General Studies Level I

Composition

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

Mathematics

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

Communications

SPE 1010 Public Speaking 3

**Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with the Mathematical and Computer Sciences Department on substitutions.*

General Studies Level II

Historical Studies

HIS ____ (American history course recommended) 3

Arts and Letters

PHI 1030 Ethics

–or–

PHI 3360 Business Ethics 3
Level II Arts and Letters elective (check General Studies guide) 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

Level II Natural Sciences electives (check General Studies guide) 6
Total of Required and Elective General Studies 34

Multicultural Requirement

The College's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement.

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. 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 accounting.

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
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
Total Hours Required in Business Core 33

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 requirements:

- no more than 9 credit hours of business course work may be counted toward this requirement.
- at least 11 hours of the 20 hours of electives must be in non-business programs.

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

Accounting Major Requirements

REQUIRED COURSES			SEMESTER HOURS
ACC	3090	Income Tax I	3
ACC	3300	Accounting Information Systems	3
ACC	3400	Cost Accounting	3
ACC	3510	Intermediate Accounting I	3
ACC	3520	Intermediate Accounting II	3
Subtotal			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	Advanced Cost Accounting	3
ACC	4100	Tax Planning	3
ACC	4200	Auditing and Attestation	3
ACC	4300	Advanced Auditing	3
ACC	4510	Advanced Accounting	3
ACC	4520	Mergers and Acquisitions	3
ACC	4650	Fraud: Issues in Accounting and Auditing	3
Total Hours Required for Accounting Major			33

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

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.

Students pursuing a bachelor's degree in Computer Information Systems are required to participate in assessment activities at both the department and school levels during their senior year.

Computer Information Systems Major for Bachelor of Science

All candidates for a Bachelor of Science degree in computer information systems must satisfy the General Studies requirements, the business core course requirements, the School of Business requirements and the major requirements described in the following sections. The basic structure of the computer information systems program is:

COURSES	SEMESTER HOURS
General Studies (Level I and Level II)	34
Business Core	33
School of Business requirements	9
Major in Computer Information Systems	27
Electives*	17
Total Hours (minimum)	120

**The Computer Information Systems Program requires 17 credit hours of electives, no more than 6 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

General Studies Level I

Composition

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

Mathematics

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

Communications

SPE 1010 Public Speaking . . . 3

**Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with the Mathematical and Computer Sciences Department on substitutions.*

General Studies Level II

Historical Studies

HIS ____ (American history course recommended) . . . 3

Arts and Letters

PHI 1030 Ethics
–or–
PHI 3360 Business Ethics . . . 3
Level II Arts and Letters elective (check General Studies guide) . . . 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

Level II Natural Sciences electives (check General Studies guide) . . . 6
Total of Required and Elective General Studies . . . 34

Multicultural Requirement

The College's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement.

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 computer information systems. 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 computer information systems.

REQUIRED COURSES . . . . . SEMESTER HOURS

ACC 2010 Principles of Accounting I . . . 3

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

School of Business Requirements

REQUIRED COURSES			SEMESTER HOURS
MTH	1320	Calculus for the Management and Social Sciences	3
ECO	2010	Principles of Economics-Macro	3
ECO	2020	Principles of Economics-Micro	3
Total Hours for School of Business Requirement			9

Elective Requirements

Each Computer Information Systems major must take 17 credit hours of electives that meet the following:

- no more than 6 credit hours of business course work may be counted toward this requirement.
- at least 11 hours of the 17 hours of electives must be in non-business programs.

Students majoring in Computer Information Systems and interested in pursuing an International Business Concentration should see an advisor.

Computer Information Systems Major Requirements

REQUIRED COURSES			SEMESTER HOURS
CMS	2110	Structure Problem Solving in Information Systems	3
CMS	3050	Fundamentals of System Analysis and Design	3
CMS	3060	Database Management Systems	3
CMS	3230	Telecommunications Systems and Networking	3
CMS	3145	Business Application Development with Visual Basic	3
CMS	4050	Systems Analysis and Design	3
Computer Information Systems Capstone Group (any 4000-level CMS course excluding CMS 4050)			3
Upper-division CMS Electives			6
Total Hours Required for Computer Information Systems Major			27

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

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.

COURSES			SEMESTER HOURS
CMS	3220	Analysis of Hardware, Software and User Interfaces for Microcomputer Platforms	3
CMS	3230	Telecommunication Systems and Networking	3
CMS	3280	LAN and WAN Systems for Business	3
CMS	3290	Operating Systems for End Users	3
CMS	4280	Network Installation and Administration	3

**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.

COURSES			SEMESTER HOURS
CMS	3050	Fundamentals of Systems Analysis and Design	
		-or-	
CMS	4050	Systems Analysis and Design**	3
CMS	3060	Database Management Systems	3
Three courses from the following			9
CMS	3030	Business Web Page Development	3
CMS	3130	Business Applications in C and UNIX	3
CMS	3145	Business Application Development with Visual Basic	3
CMS	3180	Business Applications in OOP: C++	3
CMS	3190	Business Application and Web Applet Design with Java	3
CMS	3260	Information Systems Development with GUI Development Tools	3

**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.

COURSES			SEMESTER HOURS
CMS	2110	Structured Problem Solving in Information Systems	3
Any course from the CMS Programming Language Group:			3
CMS	3130	Business Applications in C and UNIX	3
CMS	3145	Business Application Development with Visual Basic	3
CMS	3180	Business Applications in OOP: C++	3
CMS	3190	Business Application and Web Applet Design with Java	3
CMS	3260	Information Systems Development with GUI Development Tools	3
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.

COURSES			SEMESTER HOURS
CMS	2110	Structured Problem Solving in Information Systems	3
CMS	3030	Business Web Page Development	3
CMS	3220	Analysis of Hardware, Software and User Interfaces for Microcomputer Platforms	3

CMS	3270	Advanced Computer Applications for Business	3
CMS	3290	Operating Systems for End Users	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.

COURSES			SEMESTER HOURS
CMS	3030	Business Web Page Development	3
CMS	3060	Database Management Systems	3
CMS	3145	Business Application Development with Visual Basic	
-or-			
CMS	3190	Business Application and Web Applet Design with Java	3
CMS	3230	Telecommunication Systems and Networking	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 but can be found on page 107 of this *Catalog*.

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

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.

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

All candidates for a bachelor of science degree in Finance must satisfy the General Studies requirements, the business core course requirements, the School of Business requirements and the major requirements described in the following sections. The basic structure of the Finance program is:

COURSES	SEMESTER HOURS
General Studies (Level I and Level II)	34
Business Core	33
School of Business requirements	9
Major in Finance	24
Electives*	20
Total Hours (minimum)	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
General Studies Level I			
Composition			
ENG	1010	Freshman Composition: The Essay	3
ENG	1020	Freshman Composition: Analysis, Research, and Documentation	3
Mathematics			
MTH	1310*	Finite Mathematics for the Management and Social Sciences	4
Communications			
SPE	1010	Public Speaking	3

**Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with the Mathematical and Computer Sciences Department on substitutions.*

General Studies Level II			
Historical Studies			
HIS	____	(American history course recommended)	3
Arts and Letters			
PHI	1030	Ethics	
–or–			
PHI	3360	Business Ethics	3
Level II Arts and Letters elective (check General Studies guide)			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			
Level II Natural Sciences electives (check General Studies guide)			6
Total of Required and Elective General Studies			34

Multicultural Requirement

The College's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement.

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 finance. 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 finance.

COURSES			SEMESTER HOURS
ACC	2010	Principles of Accounting I	3
CMS	2010	Computer Applications for Business	3
ACC	2020	Principles of Accounting II	3
MKT	2040	Managerial Communications	3
MGT	2210	Legal Environment of Business I	3
CMS	2300	Business Statistics	3
MGT	3000	Organizational Management	3
MKT	3000	Principles of Marketing	3
FIN	3300	Managerial Finance	3
CMS	3340	Advanced Business Statistics	3
MGT	4950	Strategic Management (Senior Experience Course)	3
Total Hours Required in Business Core			33

School of Business Requirements

REQUIRED COURSES			SEMESTER HOURS
MTH	1320	Calculus for the Management and Social Sciences	3
ECO	2010	Principles of Economics-Macro	3
ECO	2020	Principles of Economics-Micro	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.
- at least 11 hours of the 20 hours of electives must be in non-business programs.

Students majoring in Finance and interested in pursuing an International Business Concentration should see an advisor.

Finance majors 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	3150	Personal Financial Planning	3
FIN	3600	Investments	3
FIN	3850	Intermediate Finance	3
Subtotal			12

General Finance Concentration

REQUIRED COURSES	SEMESTER HOURS
Finance Common Core	12
FIN 4950 Financial Strategies and Policies	3
Subtotal	15
Approved Electives*	9
*Total Hours Required for Finance Major with a General Finance 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 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.

Financial Services Concentration

REQUIRED COURSES	SEMESTER HOURS
Finance Common Core	12
FIN 4600 Security Analysis and Portfolio Management	3
Subtotal	15
Approved Electives*	9
*Total Hours Required for Finance Major with a Financial Services 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.*

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

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

COURSES			SEMESTER HOURS
ACC	3090	Income Tax I	3
FIN	3150	Personal Financial Planning	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 Planner (CFP®) Board of Standards education requirement to take the national Certified Financial Planner examination. For pre-requisites 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 Planner (CFP®) 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.

Management Degree Program

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

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

> *Our mission is to provide our diverse body of students with a high quality management and business law education. We believe that teaching and learning in a context of inquisitive, mutually respectful interaction between faculty and students is essential. Through such facilitated interaction, students develop the knowledge and skills necessary for the process of professional management in a competitive world.*
>
> *We will direct our individual and joint research efforts in relevant areas of applications of management/legal theory, instructional techniques and the continuous improvement of course content. The faculty recognizes the importance of providing service to our stakeholders.*

Necessary skills the manager should have include:

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

Management Major for Bachelor of Science

All candidates for a Bachelor of Science degree in Management must satisfy the General Studies requirements, the business core course requirements, the School of Business requirements and the major requirements described in the following sections. The basic structure of the Management program is:

COURSES	SEMESTER HOURS
General Studies (Level I and Level II)	34
Business Core	33
School of Business requirements	9
Major in Management	24
Electives*	20
Total Hours (minimum)	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

General Studies Level I

Composition

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

Mathematics

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

Communications

SPE 1010 Public Speaking 3

**Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with the Mathematical and Computer Sciences Department on substitutions.*

General Studies Level II

Historical Studies

HIS ___ (American history course recommended) 3

Arts and Letters

PHI 1030 Ethics
–or–
PHI 3360 Business Ethics 3
Level II Arts and Letters elective (check General Studies guide) 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

Level II Natural Sciences electives (check General Studies guide) 6
Total of Required and Elective General Studies 34

Multicultural Requirement

The College's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement. The School of Business does offer one of these courses, MGT 4830 Workforce Diversity.

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 management. 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 management.

REQUIRED COURSES . . . . . SEMESTER HOURS

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

School of Business Requirements

REQUIRED COURSES			SEMESTER HOURS
MTH	1320	Calculus for the Management and Social Sciences	3
ECO	2010	Principles of Economics-Macro	3
ECO	2020	Principles of Economics-Micro	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.
- at least 11 hours of the 20 hours of electives must be in non-business programs.

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

Management Requirements

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
Subtotal			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
Total Elective Hours			6
Total Hours Required for Management Major			24

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.

Mission Statement:

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

All candidates for a Bachelor of Science degree in marketing must satisfy the General Studies requirements, the business core course requirements, the School of Business requirements and the marketing major requirements described in the following sections. The basic structure of the marketing program is:

COURSES	SEMESTER HOURS
General Studies (Level I and Level II)	34
Business Core	33
School of Business requirements	9
Major in Marketing	24
Electives*	20
Total Hours (minimum)	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
General Studies Level I			
Composition			
ENG	1010	Freshman Composition: The Essay	3
ENG	1020	Freshman Composition: Analysis, Research, and Documentation	3

Mathematics
MTH 1310* Finite Mathematics for the Management and Social Sciences 4
Communications
SPE 1010 Public Speaking 3
**Note: MTH 1110 or MTH 1400, with graphing calculator experience strongly recommended, is acceptable for transfer students or students changing their major. Consult with the Mathematical and Computer Sciences Department on substitutions.*

General Studies Level II
Historical Studies
HIS ____ (American history course recommended) 3
Arts and Letters
PHI 1030 Ethics
–or–
PHI 3360 Business Ethics 3
Level II Arts and Letters elective (check General Studies guide) 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
Level II Natural Sciences electives (check General Studies guide) 6
Total of Required and Elective General Studies 34

Multicultural Requirement

The College's multicultural requirement may be satisfied by taking an approved multicultural course in general studies or electives portion of the degree requirement.

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 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 marketing.

REQUIRED COURSES			SEMESTER HOURS
ACC	2010	Principles of Accounting I	3
CMS	2010	Computer Applications for Business	3
ACC	2020	Principles of Accounting II	3
MKT	2040	Managerial Communications	3
MGT	2210	Legal Environment of Business I	3
CMS	2300	Business Statistics	3
MGT	3000	Organizational Management	3
MKT	3000	Principles of Marketing	3
FIN	3300	Managerial Finance	3
CMS	3340	Advanced Business Statistics	3
MGT	4950	Strategic Management	3
Total Hours Required in Business Core			33

School of Business Requirements

REQUIRED COURSES			SEMESTER HOURS
MTH	1320	Calculus for the Management and Social Sciences	3
ECO	2010	Principles of Economics-Macro	3
ECO	2020	Principles of Economics-Micro	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.
- at least 11 hours of the 20 hours of electives must be in non-business programs.

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

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
Total Hours Required for Marketing Major			24

**Business Communication courses can be used as business electives, but not as Marketing electives.*

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

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
Total Required course hours			12

Plus 6 hours from the following courses:

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
Total semester hours 6
-or-
One full academic year of study of any one foreign language[5] 6-10
Total credit hours. 18-22

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

[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 and Specialized TeCenter 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 (Senior Experience)	3
Subtotal			18
Approved Electives (upper division economics courses)			18
Total Hours of Economics required for Economics Major			36
Additional requirements:			
MTH	1320	Calculus for the Management and Social Sciences.	3
	-or-		
MTH	1410	Calculus I	4
(recommended for students interested in graduate work in economics)			
Subtotal			39-40
Selected Minor (minimum)			18
General Studies (minimum)			33
Multicultural requirement*			3
Electives			26-27
Total Hours Required for Bachelor of Arts in Economics			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
Total Hours Required for Accounting Minor			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	Structured Problem Solving in Information Systems	3
CMS	3060	Database Management Systems	3
CMS Upper Division Electives*			9
Total Hours Required for Computer Information Systems Minor			18

**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
Total Hours Required for Economics Minor			18

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

General Finance Minor

This minor offers a broad-based education in general finance. A particular field may be emphasized within this discipline, such as 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 (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
Total Hours Required for General Finance Minor			18

**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 the financial services area emphasizing a particular field within this discipline, such as personal financial planning, investments and financial institutions.

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
ACC	2010	Principles of Accounting I	3
FIN	2250	Personal Money Management	
	-or-		
FIN	3150	Personal Financial Planning	3
FIN	3450	Retirement Planning and Employee Benefits	3
Upper–division electives*			9
*Total Hours Required for Financial Services Minor**			18

Suggested Finance Electives for Minors:

FIN	3010	Financial Markets and Institutions	3
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
MKT	3000	Principles of Marketing	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

COURSES			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

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.

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
Subtotal			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
Subtotal			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
Subtotal			6
Total Hours Required for International Business Minor			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
Total Hours Required for Management Minor			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

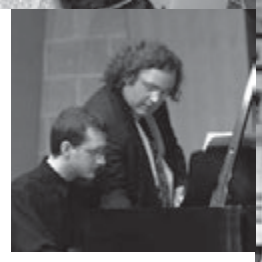
The marketing minor provides students with the opportunity to develop an understanding of business and sufficient familiarity with marketing skills to work in a business environment.

REQUIRED COURSES			SEMESTER HOURS
MKT	2040	Managerial Communications	3
MKT	3000	Principles of Marketing	3
MKT	3310	Consumer Behavior	3
MKT	4520	Seminar in Marketing Management	3
Approved Electives*			6
Total Hours Required for Marketing Minor			18

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

METRO STATE
DENVER

the School of Letters Arts & Sciences



Provides a high-quality, liberal arts education designed to meet the educational needs of the urban student.

tradition & imagination

METROPOLITAN STATE COLLEGE *of* DENVER

SCHOOL OF LETTERS, ARTS AND SCIENCES

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

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

The school offers more than 30 major and minor programs through 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 potential for social change. The courses may apply in the General Studies requirements and as electives for graduation. Students seeking secondary education licensure with a social studies endorsement must satisfy the teacher education program of MSCD in addition to all of the major requirements.

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. Students seeking secondary education licensure must consult with an advisor in African American Studies and one in Secondary Education.

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
Subtotal			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
Subtotal			3
Electives*			18
Total			39

**Elective hours in African American Studies courses are selected in consultation with the advisor.*

African American Studies Major for Bachelor of Arts With Licensure for Secondary Social Studies

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	3570	African American History I (HIS 3570)	3
AAS	3580	African American History II (HIS 3580)	3
AAS	3700	Psychology of Group Prejudice (CHS/PSY/WMS 3700)	3
AAS	3910	African Politics and Government (PSC 3910)	3
AAS	4850	Research Seminar in African American Studies	3
Subtotal			27
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
Subtotal			3
Total			30

In addition, African American Studies majors planning to teach social studies in secondary schools must take the following social science courses:

COURSES			SEMESTER HOURS
ECO	2010	Principles of Economics – Macro	3
ECO	2020	Principles of Economics – Micro	3
-or-			
ECO	3200	Economic History of the U.S.	3
GEG	1920	Concepts and Connections in Geography	3
GEG	3000	Historical Geography of the U.S	3
HIS	1010	Western Civilization to 1603.	3
-or-			
HIS	1030	World History to 1500	3
HIS	1040	World History since 1500	3
HIS	1110	Colorado History I.	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*)

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

Students must also take the licensure courses specified on pages 288-299 of this Catalog.

Minor in African American Studies

REQUIRED COURSES			SEMESTER HOURS
AAS	1010	Introduction to African American Studies	3

AAS	2000	Social Movements and the Black Experience (SOC 2000)	3
Total			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, Anthropology and Behavioral Sciences

Anthropology is the exploration of human diversity. The combination of cultural, archaeological, and biological perspectives offer a viewpoint that is unique in studying the problems related to the survival and well-being of the human species. From the living and vanished cultures of Colorado to those of New Guinea or South America, anthropology can be applied to assist our understanding of human differences. Contact the Sociology, Anthropology and Behavioral Sciences 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
Subtotal			15
Electives			21
Total			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
Subtotal			6
Electives			15
Total			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, theory and criticism. Coursework leading to licensure in art education is available for those with an existing bachelor's degree. The Art Major is accredited by the National Association of Schools of Art and Design (NASAD).

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

Note: Art students will be expected to purchase tools and supplies appropriate to the media in which they are working. In addition, courses have program fees for consumable materials, modeling fees, etc.

Art Major for Bachelor of Fine Arts

Studio Art Concentrations

Foundation Requirements for All Art Majors

COURSES			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
Total, Foundation Requirements			18

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	
ART	3XXX	Upper Division Art History/Art Theory Elective (see advisor)	3
ART	4010	Art Theory and Criticism	3
ART	4750	Senior Experience Studio: Portfolio Development and Thesis Exhibit (senior experience)	
	-or-		
ART	4751	Communication Design Senior Experience: Portfolio Development (senior experience)	3
Total			12

A letter grade of "C" or better is required in each foundation course, each of the courses listed above, and each course specifically required for a concentration.

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. (The art education concentration is listed separately)

Courses for the Concentration 48
Total for the Major 78
General Studies 33
Electives 9
Total for the Degree 120
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

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:

COURSES			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
Total			33
Choose 18 hours art electives			18
Total for the Concentration			48

Communication Design Concentration

Communication Design students must take ART 1180 *Introduction to Computers in Art* as a foundation course. Students must have a suitable laptop computer before proceeding with ART 3350 and subsequent courses. See advisor for specifications.

The following courses are required for the concentration:

COURSES			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
MGD	206	Electronic Pre-Press (CCD)	3
Total			36

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:

COURSES			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
Total			24

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:

COURSES			SEMESTER HOURS
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 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:

COURSES			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:

COURSES			SEMESTER HOURS
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
Total			18
Choose 15 hours from drawing, life drawing, figure painting, printmaking and watermedia			15
Choose 15 hours art electives			15
Total for the Concentration			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:

COURSES			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
Total			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*.			
Total for the Concentration			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:

COURSES			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
Total. 33
Choose:
1 course (3 hours) in ceramics, jewelry/metalsmithing or sculpture 3
12 hours art electives. 12
Total for the Concentration. 48

Sculpture Concentration

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

The following courses are required for the concentration:

COURSES			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
Total.			27
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
Total for the Concentration.			48

Art Education Concentration

Specific General Studies Requirements - see your advisor for details

COURSES			SEMESTER HOURS
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).	3
SPE	1010	Public Speaking (Communication)	3
General Studies for Art Education students			33
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
Total, Foundation Courses			18
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
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	Art Theory and Criticism	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

A letter grade of "C" or better is required in each foundation course, each of the courses listed above, and each course specifically required for an emphasis.

Emphasis area - see below ..... 12 to 15
Total, Art Education Concentration Courses ..... 71 to 74
Total for the degree ..... 123 to 126

Choose an concentration 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
Total			12

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
Total			15

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
Total			15

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
Total			12

Painting

ART	3150	Intermediate Painting	3
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. Students seeking licensure with a degree in Art other than a BFA may need to take additional coursework to meet licensure requirements.

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 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, Theory and 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. A letter grade of "C" or better is required in each foundation course and each course specifically required for the concentration.

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

Art History, Theory and Criticism electives:

Choose 6 courses (18 hours) from the following. At least 3 courses (9 hours) will be in art prior to the 20th century.
ART 3000 Art Nouveau 3
ART 3021 Arts of Asia 3
ART 3030 History of Art Between World Wars 3
ART 3041 African Art: The Niger to the Atlas Mountains 3
ART 3042 African Art: The Nile to the Cape 3
ART 3043 5000 Years of Egyptian Art 3
ART 3050 The Medieval Artist: Variable Topics 3
ART 3060 The Renaissance Artist: Variable Topics 3

ART	3077	Understanding Visual Language	3
ART	3080	The Baroque Artist: Variable Topics	3
ART	3090	Art & Cultural Heritage*	3
ART	3910	Site Specific Studies in Art History: Variable Topics	3
ART	3950	Women's Art/Women's Issues	3
ART	4020	Art History and Its Methods	3
ART	4755	Exhibiting the Art Object	3
Total, Art History and Art Theory/Criticism electives			18
ART	4010	Art Theory and Criticism.	3
ART	4758	Senior Thesis in Art History (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
ART	2001	World Art I: Art before 1200	3
ART	2002	World Art II: Art since 1200	3

A letter grade of "C" or better is required in each of the courses listed above.

Studio Art Electives			9
Minimum of six upper-division art hours required			
Total			27

Minor in Art History, Theory and 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.	3

A letter grade of "C" or better is required in each of the courses listed above.

Upper Division Art History Electives			6
Art Electives			6
Minimum of nine upper division art hours required			
Total			21

DIGITAL MEDIA MINOR, SEE PAGE 137 OF THIS *CATALOG*.

BEHAVIORAL SCIENCE PROGRAM

Department of Sociology, Anthropology and Behavioral Science

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
Subtotal			18

Elected Focus
In addition to the introductory course, each student must select 12 hours in one of the following social science disciplines: anthropology, economics, history, political science, psychology, or sociology. A minimum of 9 upper-division hours must be selected with the approval of an advisor.

Subtotal	12

General Electives
An additional 12 hours must be selected from any of the disciplines outside of the elected focus. Courses may be selected from anthropology, economics, history, political science, psychology, or sociology. At least 9 of these hours must be upper division. No more than 6 hours may be taken in any one discipline.

Subtotal	12
Total	42

General Studies Requirements
The student is expected to complete all General Studies requirements as stated in this *Catalog.* The student may use up to 6 hours from the required courses for the behavioral science major to complete the social science component.

Senior Experience
Selection of a Senior Experience course will vary according to the student's needs. Students seeking teacher licensure must select student teaching. Other students may select the capstone course in their focus or the applied anthropology course currently being developed by the department.

Students desiring teacher licensure should see an advisor in the teacher education program.

No minor is offered.

BIOLOGY DEPARTMENT

The Biology Department offers two majors, the bachelor of science in biology and the bachelor of arts in biology. While it is not necessary to declare a concentration within these majors, a student may choose to emphasize botany, medical technology, microbiology, 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 seeking teacher licensure, either elementary or secondary, should see an advisor in the Biology Department as the requirements may change.

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:			
BIO	2100	General Botany	5
BIO	2200	General Zoology	5
BIO	2400	General Microbiology	5
Select one of the following:			
BIO	4510	Microbial Ecology	4
BIO	4540	Plant Ecology	4
BIO	4550	Animal Ecology	4
Subtotal			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

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.

Total 40

Required Non-Biology Courses

One year of college general chemistry with lab, one semester of upper-division organic chemistry with lab, 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. CHE 3110 (Organic Chemistry II) and CHE 3130 (Organic Chemistry II Laboratory) may be substituted for the upper division biochemistry requirement with permission of a Biology Department academic advisor.

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 4510 Microbial Ecology 4
BIO 4540 Plant Ecology 4
BIO 4550 Animal Ecology 4
Subtotal 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

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.

Total 40

Required Non-Biology Courses

One year of general chemistry (equivalent to the present courses CHE 1100 and CHE 2100).

Botany Concentration

Requirements for either a bachelor of arts or a bachelor of science major 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

**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 major 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
Subtotal			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:

COURSES			SEMESTER HOURS
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
Subtotal			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-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 4510. This concentration requires a total of 43 semester hours of biology courses with 14 semester hours from the following list of electives:

COURSES			SEMESTER HOURS
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
Subtotal			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.

Total 24

CHEMISTRY DEPARTMENT

The Chemistry Department is approved by the American Chemical Society and offers several degree programs: the bachelor of science in chemistry; bachelor of science in chemistry criminalistics concentration; and the bachelor of arts in chemistry. Minors in chemistry and criminalistics are also available.

Students who plan to pursue a career in chemistry after graduation or plan to attend graduate school in chemistry should choose the bachelor of science in chemistry program. The bachelor of arts in chemistry program is designed for students who plan a career in a field related to chemistry, but who do not intend to attend graduate school in chemistry. The bachelor of arts option, which requires fewer hours,

may be especially attractive to those wishing a second major or to those students desiring secondary education licensure.

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
Total			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
Subtotal			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
PHY	2311	General Physics I	
–and–			
PHY	2331	General Physics II	
–or–			
PHY	2010	College Physics I	
–and–			
PHY	2020	College Physics II	8
Subtotal			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
Subtotal			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	6
Total	56

Criminalistics Concentration

Students electing this program of study must complete the basic chemistry core (26 hours) in addition to the following required courses. The requirement of a minor is waived for students in this program.

REQUIRED COURSES			SEMESTER HOURS
Basic Core			26
Additional Required Chemistry Courses:			
CHE	4100	Instrumental Analysis	3
CHE	4110	Instrumental Analysis Laboratory	2
CHE	4310	Biochemistry I	4
CHE	4350	Biochemistry Laboratory	1
Subtotal			10
Required Criminalistics Courses:			
CHE	3700	Criminalistics I	4
CHE	3710	Criminalistics II	4
CHE	4710	Criminalistics Internship II	6
Subtotal			14
Required Ancillary Courses:			
BIO	1080	General Introduction to Biology	3
BIO	1090	General Introduction to Biology Laboratory	1
BIO	3050	Cell and Molecular Biology	4
BIO	3600	General Genetics	4
CJC	1010	Introduction to the Criminal Justice System	3
CJC	2120	Evidence and Courtroom Procedures	
-or-			
CJC	2140	Criminal Procedure	3
MTH	1210	Introduction to Statistics	
-or-			
MTH	3210	Probability and Statistics	4
MTH	1410	Calculus I	4
PHI	1030	Ethics	3
Subtotal			*29*
One of the following year-long physics sequences:			
PHY	2010	College Physics I	4
PHY	2030	College Physics I Laboratory	1
PHY	2020	College Physics II	4
PHY	2040	College Physics II Laboratory	1
-or-			
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
Subtotal			10
Required Options (Select A or B)			
Option A:			
CHE	3190	Survey of Physical Chemistry	4
CHE	3200	Survey of Physical Chemistry Laboratory	1
CHE	4700	Criminalistics Internship I	5

Subtotal			10
Option B:			
CHE	3250	Physical Chemistry I	4
CHE	3280	Physical Chemistry I Laboratory	2
CHE	3260	Physical Chemistry II	4
CHE	3290	Physical Chemistry II Laboratory	2
MTH	2410	Calculus II	4
MTH	2420	Calculus III	4
Subtotal			20
Total			99-109

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.			
Subtotal			6
Required Ancillary Courses			
MTH	1410	Calculus I	4
PHY	2010	College Physics I	4
Total Ancillary Courses Required			8
Total			45

Minor in Chemistry

Students completing the basic chemistry core (26 hours) qualify for a minor in chemistry. Students may elect to substitute 5 semester hours in other upper division chemistry courses for CHE 3110 and CHE 3130.

CORE			SEMESTER HOURS
CHE	1800	General Chemistry I	4
CHE	1810	General Chemistry II	4
CHE	1850	General Chemistry Laboratory	2
CHE	3000	Analytical Chemistry	3
CHE	3010	Analytical Chemistry Laboratory	2
CHE	3100	Organic Chemistry I	4
CHE	3110	Organic Chemistry II	3
CHE	3120	Organic Chemistry I Laboratory	2
CHE	3130	Organic Chemistry II Laboratory	2
Total			26

Minor in Criminalistics

REQUIRED COURSES			SEMESTER HOURS
CHE	1100	Principles of Chemistry	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
Total			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.

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
Subtotal			18
Language Requirements			
SPA	1010	Elementary Spanish I	5
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 pursing 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 1603	
	-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*)

* 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*	33

*(assuming the six hours of social science and three hours of history come from the above)

Licensure courses (see pages 291-296 of this *Catalog*)	37
Total for Chicano Studies Major Social Studies Concentration	124

Elementary Social Studies Teacher Licensure Concentration

The Chicana/o Studies Department is currently working on this new concentration curriculum, see the Department of Teacher Education for further information.

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 concentration 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
Total			21

**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.

REQUIRED CORE COURSES			SEMESTER HOURS
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)*

			SEMESTER HOURS
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
Unrestricted Electives 5
Subtotal 26
**These courses, along with MTH 1410, CHE 1800, 1810, 1850 or PHY 2311, 2321, 2331, 2341, PHI 3370, and SPE 1010, count as General Studies courses. The Multicultural graduation requirement of 3 credit hours must also be satisfied.*
Total 120

As an alternative to the B.S. degree program, the department works with the Center for Individualized Learning to provide students with programs customized to their educational needs. Currently we have guidelines for degrees in computer game development and immersive technologies and computer crime and security.

Minor in Computer Science

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

REQUIRED CORE 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 12

Total 20

**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

Departments of Art, Communication Arts and Sciences, and Technical Communications and Media Production

Digital Media Minor

The Digital Media Minor includes courses from the departments of Art, Communication Arts and Sciences, and Technical Communications and Media Production. 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 LAS 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 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
Required Core Total			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
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/Web Production	3
COM	4450	Advanced Multimedia/DVD Production	3

Motion Media Concentration

COURSES			SEMESTER HOURS
ART	3410	Digital Video Art (prerequisite ART 2180)	3
COM	2400	Basic Nonlinear Video Editing	3
COM	3400	Intermediate Nonlinear Video Editing	3
COM	4401	Advanced Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video Production	3
COM	3420	Intermediate Single Camera Video Production	3
COM	4420	Advanced Single Camera Video 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	Scriptwriting for Video	3
COM	3470	Writing for Interactive Media	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
Total for Minor in Digital Media (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 Web site (www.mscd.edu/~eas). Minor programs are available in geography, geology, meteorology, and environmental studies. 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, 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 146 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 163 of this *Catalog*.)

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 Pro-

gram. 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 174 of this *Catalog*.)

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

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 and Milton	3
ENG	3440	Myth, Symbol, and Allusion in Literature	3
ENG	4610	Literary Criticism (Senior Experience course)	3
Subtotal			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 the 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
Subtotal.			9
*Seven Electives:			
**at least 6 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
Linguistics course			3
Elective at the 2000-level or above.			3
Subtotal			21
Total Semester Hours Required.			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 COURSES			SEMESTER 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

Subtotal 15

Language/Linguistics Core Courses
ENG 2010 The Nature of Language 3
ENG 3020 History of the English Language. 3
Subtotal 6

Writing/Composition Courses
ENG 2500 Art and Craft of Writing
–or–
ENG 2520 Introduction to Creative Writing 3
ENG 3510 Advanced Composition 3
Subtotal 6

Language Arts Core Courses
ENG 4650 Teaching Composition in the Elementary School 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
Subtotal 6

English Electives
Two upper-division English courses selected in consultation with and approved by a designated English advisor. 6
Total 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.

REQUIRED COURSES . . . . . SEMESTER HOURS

I. Literature Core
ENG 2100 Introduction to Literary Studies 3
ENG 2210 American Literature: Beginnings through the Civil War
–or–
ENG 2220 American Literature: Civil War to Present 3
ENG 3100 Chaucer, Shakespeare, Milton 3
ENG 3440 Myth, Symbol, and Allusion in Literature 3
ENG 3470 Young Adult Literature 3
Total 15

II. Language Core
ENG 2010 The Nature of Language 3
ENG 3020 History of the English Language. 3
Total 6

III. Composition Core
ENG 2500 Art and Craft of Writing 3
ENG 3510 Advanced Composition 3
Total 6

IV. Teaching English Core
ENG 4600 Teaching Literature and Communication, 7–12 3
ENG 4620 Teaching Composition, 7–12. 3
ENG 4640 Teaching English, 7–12 (Senior Experience course) 3
Total 9

V. Upper Level Electives
Three upper-division English courses, at least two of which must be literature courses, selected in

consultation with and approved by a designated English advisor 9
Total 45

Writing Concentration

The writing concentration major provides extensive study, practice, and opportunity for performance in various modes and genres of writing as well as a foundation in the appreciation of the literary heritage in English. The program immerses students in reading, writing, and language and helps prepare them for graduate school or vocation while clearly placing them in the tradition of the liberal arts.

REQUIRED COURSES . . . . . SEMESTER HOURS
I. Literature Course
Lower-Division Literature Courses:
2000-Level, including ENG 2100 9
Upper-Division Literature Courses:
3000-Level or 4000-Level 9
Subtotal 18
II. Language and Linguistics Course:
Select one, in consultation with a faculty advisor, from department's offerings.
Semester Hours of Language and Linguistics Required 3
III. Writing Course:
Entry Course:
ENG 2500 Art and Craft of Writing 3
Subtotal 3
Writing Electives:
(select four — three must be 3000-level)
JRN 1100 Beginning Reporting 3
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
Subtotal 12
Specialized Writing Courses
ENG 3820 Writing Studio: Variable Topics* 6
**must be repeated for credit under two distinct titles*
Subtotal 6
Senior Experience Course
ENG 4520 Advanced Writing 3
Total Semester Hours of Writing Required 24
Total Semester Hours Required. 45

English Minor

Writing Concentration

The writing concentration minor provides study, practice, and opportunity for performance in various modes and genres of writing as well as a foundation in the appreciation of the literary heritage in English. The program involves students in reading, writing, and 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
COURSES . . . . . SEMESTER HOURS
Lower-Division Literature Courses:
2000-Level, including ENG 2100 6

Upper-Division Literature Course:
3000-Level or 4000-Level 3
Subtotal 9
II. Language and Linguistics Course:
Select one, in consultation with a faculty advisor, from department's offerings.
Semester Hours of Language and Linguistics Required. 3
III. Writing Course:
Entry Course:
ENG 2500 Art and Craft of Writing 3
Subtotal 3
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
Subtotal 9
Semester Hours of Writing Required 12
Total Semester Hours Required. 24

Literature Concentration

The English minor with concentration in literature serves students who seek to develop skills in reading, writing, and thinking about literary texts. The program is designed both for students interested in reading diverse texts from many ages, culture, and genres and for students who wish to focus on a single age, culture or genre, for example, dramatic literature.

Course should be selected in consultation with a faculty advisor in the Department of English.

I. Introductory Course:
COURSES . . . . . 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 the 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
Subtotal.. 6
III. Any period course (ENG 311X)
–or–
Any development course
(English literature course with "Development" in title or ENG 3240)
Subtotal 3
IV. Departmental Electives
One course at the 2000-level or above 3
Two literature courses at the 3000-level or above 6
One 4000-level literature or literary criticism course. 3
Subtotal 12
Total Semester Hours Required. 24

Language and Linguistics Minor

The language and linguistics minor offers concepts about, theories of, and analytical techniques in natural language. It represents an intellectual discipline in itself and simultaneously serves the interests of future teachers, students of literature and writing, and others who have a continuing fascination with language as language. The minor is especially complementary for majors in anthropology, English, foreign language teaching, modern languages, philosophy, psychology, sociology, speech communication, and technical communication. The minor requires students to engage in vigorous, progressively more explicit and precise analysis and synthesis as they examine facts and fallacies about the miracle of language. There are two concentrations in the Language/Linguistics minor, one focusing primarily on linguisitcs (Linguistics Concentration) and the other including a 3-semester language component (Language Concentration).

Linguistics Concentration

REQUIRED CORE COURSES			SEMESTER HOURS
ENG	2010	The Nature of Language	3

Any four of the following six courses, chosen in consultation and with and approved by a 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	3070	Old English	3
ENG	4010	Studies in Linguistics: Variable Topics	3
Subtotal			12

**may be repeated for credit under different topics*

Interdisciplinary elective courses. Any two courses chosen in consultation with and approved by departmental advisor.

ANT	2330	Cross-Cultural Communication	3
-or-			
SPE	3740	Psychology of Communication	3
-or-			
SPE	3760	Cultural Influences on Communication	3
COM	3310	International Technical Communications	3
ENG	4010	Studies in Linguistics: Variable Topics*	3
ENG	4990	Internship*	3
FRE	3150	French Phonetics: Theory and Practice	3
GER	3150	German Phonetics: Theory and Practice	3
GER	3300	Advanced German Grammar	3
PHI	1110	Language, Logic, and Persuasion	3
PHI	1440	Logic	3
PHI	3120	Philosophy of Language	3
PSY	3570	Cognitive Psychology	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/WMS	2770	Gender and Communication	3
Subtotal			6

**may be repeated for credit under different topics*

must be set up with LLN advisor and approved by curriculum chair and department chair* ***in advance.

Total Semester Hours Required.	21

Language Concentration

REQUIRED CORE COURSES . . . . . SEMESTER HOURS
ENG 2010 The Nature of Language 3
Any four of the following six courses, chosen in consultation and with and approved by a 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 3070 Old English 3
ENG 4010 Studies in Linguistics: Variable Topics 3
Subtotal 9
**may be repeated for credit under different topics*
At least three semesters of a single language for a total of at least 13 credits, chosen in consultation with and approved by departmental advisors, in the case of a transfer student, at least two semesters must include grammar.
FRE 1010 and 1020 Elementary French I and II 10
FRE 2110 French Reading and Conversation 3
-or-
GER 1010 and 1020 Elementary German I and II 10
GER 2110 German Reading and Comprehension 3
-or-
GER 2310 German Vocabulary Building and Grammar 3
-or-
SPA 1010 and 1020 Elementary Spanish I and II 3
SPA 2110 Intermediate Spanish 3
-or-
SPA 2110 Spanish Grammar and Composition I 3
Subtotal 13
Total Semester Hours Required 25

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 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)

COURSES . . . . . SEMESTER HOURS
BIO 1080 General Introduction to Biology 3
BIO 1090 General Introduction to Biology Laboratory 1
CET 3320 Environmental Impact Statements 3
COM 3670 Writing for the Environmental Industry
(Prerequisite: COM 2610 or permission of instructor) 3

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
Subtotal			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
Subtotal			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
Subtotal			3
Total Core Requirements			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
Total General Studies courses (see General Requirements Brochure)			36

(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)

COURSES			SEMESTER HOURS
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
BIO	4550	Animal Ecology	4
Subtotal			9

Chemistry (9 hours minimum)

COURSES			SEMESTER HOURS
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
Subtotal			9

Geography (9 hours minimum)

COURSES			SEMESTER HOURS
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
Subtotal			9

Geology (9 hours minimum)

COURSES			SEMESTER HOURS
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
Subtotal			9

Mathematics (3 hours minimum)

COURSES			SEMESTER HOURS
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
Subtotal			3

Meteorology (3 hours minimum)

COURSES			SEMESTER HOURS
MTR	1400	Weather and Climate	3
MTR	2400	Introduction to Atmospheric Science (recommended)	4
MTR	3100	Air Pollution	3
MTR	3400	Synoptic Meteorology	4
Subtotal			3
Total Multidisciplinary Courses			42
General Studies			36
Additional Electives			10
Total for Multidisciplinary Concentration			120

Water Quality Concentration

COURSES			SEMESTER HOURS
Environmental Science Core			32
Additional Required Courses:			
CHE	1810	General Chemistry II	4
CHE	1850	General Chemistry Laboratory	2
CHE	3050	Environmental Chemistry	3
CHE	3100	Organic Chemistry I	4
CHE	3120	Organic Chemistry Laboratory I	2
GEL	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 courses at Front Range and Red Rocks Community Colleges)*	
Subtotal			28

Red Rocks Community College Required Courses

COURSES			SEMESTER HOURS
WQM	100	Introduction to Water Quality Management	3
WQM	119	Basic Water Quality Analysis	4
WQM	121	Environmental Sampling and Volume Measurement	3
WQM	216	Biological and Bacteriological Water Quality Analysis	4
Subtotal			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
Subtotal			10
General Studies			36
Total for Water Quality Concentration			120

Ecological Restoration Concentration

COURSES			SEMESTER HOURS
Environmental Science Core			32
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
Subtotal			27
Electives (select at least 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
BIO	4540	Plant Ecology	4
GEG/GEL		Topics courses (advisor approved)	2–3
Subtotal			25
General Studies			36
Total for Ecological Restoration Concentration			120

Environmental Chemistry Concentration

COURSES			SEMESTER HOURS
Environmental Science Core			32
Additional Required Courses:			
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) (offered as continuing education courses at Front Range and Red Rocks Community Colleges)	3
Subtotal			42
General Studies			36
Electives			10
Total for Environmental Chemistry Concentration			120

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
Subtotal			13
Senior Experience			
ENV	4960	Global Environmental Challenges	3
Internship			
EDS	4290	Student Teaching and Seminar: Secondary 7–12	12
Total Core Requirements			28

Additional Science Requirements:

COURSES			SEMESTER HOURS
BIO	2100	General Botany	4
-or-			
BIO	2200	General Zoology	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
GEL	1010	General Geology	4
GEL	1030	Historical Geology	4
GEL	3150	Hydrogeology	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
Total Additional Science Requirements			51

General Studies:

COURSES			SEMESTER HOURS
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

Total General Studies			22

Secondary Education Requirements:

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
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
Total Secondary Education Requirements			25
Total for Secondary Science Teacher Licensure Concentration in Environmental Science			126

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
CHE	1010	Chemistry and Society	3
CHE	1800	General Chemistry I	4
ENV	1200	Introduction to Environmental Science	3
Subtotal			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
Subtotal			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
Subtotal			6
Total for Environmental Studies Minor			21

GERONTOLOGY
Department of Health Professions

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 experi-ence involving the aged or services for the aged.

Orientation Exit Behavior (based on orientation area selected by the student)

Liberal Arts

- examine attitudes toward older culturally diverse people to discover ways that aging is portrayed.

Professional Practice

- provide direct services to older culturally diverse people and their families, administer and plan programs and services or work to modify social institutions and policies.

Students must complete all of the following core course requirements and at least nine (9) credit hours from either the liberal arts orientation or the professional services orientation.

REQUIRED CORE COURSES			SEMESTER HOURS
HES	3810		
-or-			
BIO	3530	Physiology of Aging for Non-Biology Majors	3
PSY	3270	Adulthood and Aging	3
SOC	1040	Introduction to Social Gerontology	3
HES	4520	Internship in Gerontology	3-6
Subtotal			12-15

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

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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
Total hours for Gerontology Minor			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.

HISTORY DEPARTMENT

History 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.

REQUIRED COURSES			SEMESTER HOURS
HIS	1010	Western Civilization to 1603	3
HIS	1020	Western Civilization since 1603	3
HIS	1210	American History to 1865	3
HIS	1220	American History since 1865	3
HIS	4820	Senior Seminar	3
Subtotal			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 devoted to world history, Latin American history, Asian history, or African history. Students should see an advisor in the History Department for a list of courses that meet this requirement.

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 Social Science: Secondary School*, for HIS 4820–*Senior Seminar*.

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

COURSES			SEMESTER HOURS
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 U.S., 1877–1920	3
HIS	3640	U.S. World War I through World War II	3
HIS	3660	Recent U.S. 1945–1990s*	3
Subtotal			9

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

COURSES			SEMESTER HOURS
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
Subtotal			6

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

COURSES			SEMESTER HOURS
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 U.S. History	3
HIS	1920	History of the Chicana/o in the Southwest: 1810 to Present	3
HIS	1940	Survey of African History*	3
HIS	3090	Native Americans in American History	3
HIS	3240	Imperial Russia	3
HIS	3290	Nazi Germany	3
HIS	3310	England to 1714	3
HIS	3320	England since 1714	3
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	3770	World of Islam	3
HIS	3830	The Mexican Revolution	3
Subtotal			6

Required courses	15
Category I	9
Category II	6
Category III	6
Electives	6
Total	42

Students majoring in history must maintain at least a 2.0 average in their history courses. 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. All three require HIS 1220, which will also count toward the College's General Studies requirements.

Regular History Concentration

REQUIRED COURSES			SEMESTER HOURS
HIS	1010	Western Civilization to 1603	3

HIS	1020	Western Civilization since 1603	3
HIS	1210	American History to 1865	3
HIS	1220	American History since 1865	3
Total			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
Total			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	1040	World History since 1500	3
HIS	1220	American History since 1865	3
Total			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.*

INTERDISCIPLINARY LEGAL STUDIES

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	XXXX	Seminar in Legal Topics (interdisciplinary—team-taught course)	3
Subtotal			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
Total			24

HOLISTIC HEALTH AND WELLNESS

Department of Health Professions

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
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.

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 four 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

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
Subtotal			33-34
Additional Requirements (dependent upon the track)			9
Total for the Major			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.

COURSES			SEMESTER HOURS
AAS	3550	The Black Family	3
BIO3530/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
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 for General Studies. Students in the Applied Track–Gerontology may not have a gerontology minor.

COURSES			SEMESTER HOURS
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 3
-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

[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 4
Subtotal. 34

In addition, students must take nine semeser hours from he followinf list of courses. Students may not use the same courses to count for the major and for the minor or General Studies.
The following three courses are also required:
ECE 3340 Administration of Early Childhood Programs 3
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 Aquisition 3
Total for Major with Elementary 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.

Elementary Education Track

REQUIRED COURSES . . . . . SEMESTER HOURS
Common Core 18

Required Distribution as follows:

Developmental Foundations
PSY 1800 Developmental Educational Psychology 4

Developmental Breadth
PSY 3250 Child Psychology 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

ECU	3100	Social Foundations and Multicultural Education	4

The following three courses are also required:

PSY	2310	Introduction to Statistics for Social and Behavioral Science[a]	3
SPE	2890	Language Aquisition	3
HPS	4500	Motor Learning and Development	3
Total for Major with Elementary Education Track			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.

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 required for all concentrations in the Journalism major:

COURSES			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
Subtotal			12

News/Editorial Concentration

COURSES			SEMESTER HOURS
Journalism Core			12
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)			
Subtotal			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
Subtotal			12
Total			36

Photojournalism Concentration

Students who major in Journalism with a Photojournalism concentration may not use the still media concentration of the Digital Media as their minor.

COURSES			SEMESTER HOURS
Journalism Core			12
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)			
Subtotal			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	3410	Digital Video Art	3
JRN	1700	Survey of Public Relations	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
Subtotal			3
Total			36

Public Relations Concentration

COURSES			SEMESTER HOURS
Journalism Core			12
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
Subtotal			27

Select at least 3 hours:

COM	2420	Basic Single Camera Video Production	3
COM	2430	Introduction to Technical Media	3
COM	2460	Presentation Graphics	3
COM	3440	Scriptwriting for Video	3
JRN	1600	Survey of Photojournalism	3
JRN	2600	Introduction to Photojournalism	3
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
Subtotal			3
Total			42

Journalism Minor

Students who major in Journalism with a Photojournalism concentration may not use the still media concentration of the Digital Media as their minor.

COURSES			SEMESTER 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
Total			18

Photojournalism Minor

COURSES			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
Total			21

Public Relations Minor

COURSES			SEMESTER 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
Total			24

DIGITAL MEDIA MINOR, SEE PAGE 137 OF THIS *CATALOG*.

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.**

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
Required Core Total			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
Subtotal			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
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
Subtotal			12
Total for major			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
Subtotal			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
Subtotal			7
Total for major			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
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
Total required concentration			30

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
Subtotal			19

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
Subtotal			19

Planning

COURSES			SEMESTER HOURS
ENV	1200	Introduction to Environmental Science	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
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
Subtotal			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
Subtotal			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
Subtotal			44

Electives (Select a minimum of 5 credit hours)

COURSES			SEMESTER 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
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
Subtotal			5
Total for major			65

Geography Minor

REQUIRED CORE			SEMESTER HOURS
GEG	1120	Orienteering	1
GEG	1220	Map Use	2
GEG	1300	Introduction to Human Geography	3
MTR	1400	Weather and Climate	3
Subtotal			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

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

Resources and Environment

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
GEG	1000	World Regional Geography	3
GEG	2020	Geography of Colorado	3
GEG	3000	Historical Geography of the U.S.	3
GEG	3520	Regional Geography: Variable Topics	2-3
GEL	1020	Geology of Colorado	3

Field-Lecture Course

COURSES			SEMESTER HOURS
Either a geography or geology field-lecture course			1-2
Elective subtotal			13-16
Geography Minor Total			22-25

Geology Minor

REQUIRED CORE			SEMESTER HOURS
GEL	1010	General Geology	4
GEL	1030	Historical Geology	4
GEL	3050	Mineralogy and Petrology	4
GEL	3060	Stratigraphy and Structure	4
Subtotal			16

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.

COURSES			SEMESTER HOURS
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, archaeology, 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 certificate program 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
Total credits for certificate			23

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.

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 135 of this *Catalog*.

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.*

***All 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.

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

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
Subtotal			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

Subtotal	22
Total	42

**Only one of the three courses MTH 2140, MTH 3130, and MTH 3140 can be counted.*

Applied Mathematics Concentration

The concentration in applied mathematics is designed to meet the needs of the scientific, technical, and computer-based economy and to prepare the student for graduate study. The department has made every effort to have state-of-the-art technologies and practices available for student use and strongly recommends that students interested in this concentration take sections of calculus using *Mathematica*. A grade of "C" or better is required in each course included in the major.

REQUIRED COURSES			SEMESTER HOURS
Basic Core			15
MTH	1510	Computer Programming: FORTRAN	4
MTH	3140	Linear Algebra*	4
MTH	3210	Probability and Statistics	4
MTH	3420	Differential Equations	4
MTH	3440	Partial Differential Equations	4
MTH	4480	Numerical Analysis I	4
MTH	4490	Numerical Analysis II	4
MTH	4590	Applied Mathematics Senior Seminar	1
Total			44

*MTH 3130 and one of the following (MTH 3110 or MTH 3650 or MTH 4110 or MTH 4150 or MTH 4410 or MTH 4660) may substitute for MTH 3140.

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 with its required minor 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
Subtotal			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
Subtotal			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
Subtotal			1
Total			40

*MTH 3130 and one of the following (MTH 3110 or MTH 3650 or MTH 4110 or MTH 4150 or MTH 4410 or MTH 4660) may substitute for MTH 3140.

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
Total Hours Required for Minor			26

**Note: Required courses are pending approval.*

Mathematics Education Concentration

The concentration in mathematics education is for the preparation of classroom teachers of mathematics at the secondary level and is also appropriate for students who plan to teach at the elementary level. Students seeking teacher licensure at either level must satisfy MSCD's professional education program requirements for the desired level in addition to all of the mathematics major requirements. In particular, students seeking licensure at the secondary level with endorsement in mathematics must complete the Professional Education Sequence in Secondary Mathematics described below. Students seeking licensure at the elementary level should take the General Course Requirements for Elementary Education Licensure and the Professional Elementary Education Licensure Sequence listed on page 289 of this *Catalog*. Content competency must be shown for mathematics course credit that is ten or more years old. A grade of "C" or better is required for all courses in the major.

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
Subtotal			4
MTH	3110	Abstract Algebra I	3
MTH	3140	Linear Algebra*	4
MTH	3210	Probability and Statistics	4
MTH	3470	Introduction to Discrete Mathematics and Modeling	3
MTH	3650	Foundations of Geometry	3
MTH	4600	Seminar in Problem Solving	1

MTH	4640	History of Mathematics	4
Total			41

*MTH 3130 and one of the following (MTH 4110 or MTH 4150 or MTH 4410 or MTH 4660) may substitute for MTH 3140.

Professional Education Sequence in Secondary Mathematics
(To Complement the Mathematics Education Concentration)

Students seeking teacher licensure at the secondary level with endorsement in mathematics must take the following sequence of courses and be admitted to the teacher education program (see pages 283-299). Students should pay particular attention to corequisites and prerequisites.

REQUIRED COURSES			SEMESTER HOURS
EDS	3110[a]	Processes of Education in Multicultural Urban Secondary Schools	3
EDS	3120[a]	Field Experiences in Multicultural Urban Secondary Schools	2
EDS	3200	Educational Psychology Applied to Teaching	3
EDS	3210[b]	Standards-Based Curriculum, Assessment, and Classroom Management in the Secondary School	3
EDS	3222[b]	Field Experience in Mathematics Teaching, Assessment, and Management in the Secondary School	2
EDT	3610[c]	Applications of Educational Technology	2-3
MTL	3620	Mathematics of the Secondary Curriculum	4
MTL	3630[d]	Teaching Secondary Mathematics	3
MTL	3638[d]	Secondary Mathematics Field Experience	2
MTL	4690	Student Teaching and Seminar: Secondary 7–12	12
RDG	3280	Teaching Literacy Skill Development in the Content Areas	4
SED	3600	The Exceptional Learner in the Classroom	3
Total			43-44

[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
Subtotal			22
One of the following two courses:			
MTH	4220	Stochastic Processes	4
MTH	4230	Applied and Computational Statistics	4
Subtotal			4
MTH	4290	Senior Statistics Project	1
Total			42

**MTH 3130 or 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
Total			39

*MTH 3130 and one of the following (MTH 3650 or MTH 4110 or MTH 4150 or MTH 4660) may substitute for MTH 3140.

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
Subtotal			12

Electives
A minimum of 10 hours at least 7 of which must be upper division. These 10 hours may include MTH 2420, any upper-division mathematics course except MTH 3240, or any course approved by the Mathematical and Computer Sciences Department.

Electives			10
Total			22

**Note: Only one of three courses, MTH 2140, MTH 3130, or MTH 3140 can be counted. 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, 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
Approved 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	3400	Synoptic Meteorology	4
Approved Electives selected from courses below			12
Total			20

Approved Electives*			
MTR	2410	Weather Observing Systems	3
MTR	3100	Air Pollution	3
MTR	3410	Weather Analysis Techniques	2
MTR	3420	Radar and Satellite Meteorology	3
MTR	3500	Hazardous Weather	3
MTR	3710	Meteorological Cooperative Education I	3-6
MTR	4210	Forecasting Laboratory I	1
MTR	4220	Forecasting Laboratory II	1
MTR	4230	Forecasting Laboratory III	1
MTR	4240	Forecasting Laboratory IV	1
MTR	4440	Climatology	3
MTR	4500	Mesometerology	3
AES	3460	Weather and Aircrews**	3

*Some calculus-based courses are also available.
**This course is required for some aviation technology majors. For this course to count towards the meteorology minor, students must consult with an advisor in the Aviation and Aerospace Science Department.

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.

The core curriculum of 12 hours in the chosen language must be taken as follows:

French

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
Subtotal			12

German

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

Spanish

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
Subtotal 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
Total. 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

[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

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
French electives (upper division)			6
Subtotal			18

German

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
German electives (upper division)			6
Subtotal			18

Spanish

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
Spanish electives (upper division)			6
Subtotal			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.

French Concentration for Teacher Licensure

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	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 Socio-Cultural 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
Total			42

German Concentration for Teacher Licensure

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
GER	3150	German Phonetics: Theory and Practice	3
GER	3210	Survey of German Literature I	3
GER	3220	Survey of German Literature II	3
GER	3230	Contemporary German Writers	3
GER	3300	Advanced German Grammar	3
GER	4200	Major German Authors	3
GER	4210	Advanced Conversation: Present-day Germany	3
German Electives			6
MDL	4960	Teaching Foreign Languages in the Secondary Schools	3
Total			42

Spanish Concentration for Teacher Licensure

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	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
Total			42

Spanish Concentration for Teacher Licensure - Elementary Education

REQUIRED COURSES			SEMESTER HOURS
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 1920 History of the Chicana/o in the Southwest: 1810 to Present . . . 3
Total . . . 42

Minor in French

REQUIRED COURSES . . . SEMESTER HOURS
FRE 2010 Intermediate French I . . . 3
FRE 2020 Intermediate French II . . . 3
FRE 2110 French Reading and Conversation . . . 3
FRE 3010 Introduction to Advanced French Studies . . . 3
FRE 3110 Survey of French Literature I
–or–
FRE 3120 Survey of French Literature II . . . 3
FRE 3550 French Historical Perspectives
–or–
FRE 3560 Contemporary Socio-Cultural 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:
COURSES . . . SEMESTER HOURS
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:
COURSES . . . SEMESTER HOURS
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

COURSES			SEMESTER HOURS
GER	3300	Advanced German Grammar	3
GER	3400	German for Business I	3
GER	3410	Translation Techniques for Scientific Materials	3
GER	4020	Advanced German Composition	3
GER	4410	Advanced Translation Techniques	3

For prerequisites and more information call Dr. Gudrun Clay, 303-556-2909

Basic Competency in French

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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. Rodolfo Garcia, 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. 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 bands, orchestra, choirs, 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 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 283 - 299, 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.

Bachelor of Music Education

Core Requirements for all Music Education Majors

COURSES			SEMESTER HOURS
MUS	1110	Music Theory I	3
MUS	1120	Music Theory Lab I	1
MUS	1130	Music Theory II	3
MUS	1140	Music Theory Lab II	1
MUS	2110	Music Theory III	3
MUS	2120	Music Theory Lab III	1
MUS	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
Subtotal			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:

COURSES			SEMESTER HOURS
MUS	2810	Ensemble	1
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

COURSES			SEMESTER HOURS
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

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
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

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

Instrumental Concentration

COURSES			SEMESTER HOURS
MUS	3430	Woodwind Techniques and Materials	1
MUS	3480	Marching Band Techniques and Materials	1
MUS	3530	Instrumental Conducting and Literature	3
Subtotal			5
Total for the Music Education Major			89-91

General Studies for the Music Education Major

COURSES			SEMESTER HOURS
MTH	1610	Integrated Mathematics I (General Studies–Level I, Mathematics)	3
SPE	1010	Public Speaking	3
Additional General Studies classes for the degree*			21
Subtotal			28

**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	28
Total for the B.M.E. in Music Concentration	124

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.

COURSES			SEMESTER HOURS
EDU	4190	Student Teaching and Seminar: Elementary K–6	6
EDS	4290	Student Teaching and Seminar: Secondary 7–12	6
Total			12

Music Performance Concentrations for Bachelor of Music

Core Requirement for all Music Performance Majors

COURSES			SEMESTER HOURS
MUS	1110	Music Theory I	3
MUS	1120	Music Theory Lab I	1
MUS	1130	Music Theory II	3
MUS	1140	Music Theory Lab II	1
MUS	2110	Music Theory III	3
MUS	2120	Music Theory Lab III	1
MUS	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
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:

COURSES			SEMESTER HOURS
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:

COURSES			SEMESTER HOURS
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.

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

Voice Concentration

COURSES			SEMESTER HOURS
MUS	1400	Vocal Diction	3
MUS	4420	Vocal Pedagogy	3
Subtotal			6

Piano Concentration

COURSES			SEMESTER HOURS
MUS	3100	Counterpoint	3
MUS	4410	Piano Pedagogy	3
Subtotal			6

Organ Concentration

COURSES			SEMESTER HOURS
MUS	3100	Counterpoint	3
MUS	3520	Choral Conducting and Literature	3
Subtotal			6

Guitar Concentration

COURSES			SEMESTER HOURS
MUS	3100	Counterpoint	3
MUS	3150	Instrumental and Choral Scoring and Arranging	3
Subtotal			6

Woodwind, Brass, String or Percussion Concentration

COURSES			SEMESTER HOURS
MUS	3150	Instrumental and Choral Scoring and Arranging	3
MUS	3530	Instrumental Conducting and Literature	3
Subtotal			6
Total for the Music Performance Concentrations for the Bachelor of Music			82

General Studies

COURSES			SEMESTER HOURS
SPE	1010	Public Speaking	3
Additional General Studies classes for the degree			30
Subtotal			33

Core	62
Secondary Performance Area	2
Ensemble Requirements	12
Concentration	6
General Studies	33
Electives	5
Total for B.M. in Music (with a Music Performance Concentration)	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
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
Subtotal			68

Performance Area

COURSES			SEMESTER HOURS
MUS	161B**	Class Piano I	1
MUS	162B**	Class Piano II	1
MUS	261B**	Class Piano III	1
MUS	262B**	Class Piano IV	1

Subtotal 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:

COURSES			SEMESTER HOURS
MUS	2810	Ensemble*	1
MUS	3810	Ensemble*	1
Subtotal			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:

COURSES			SEMESTER HOURS
MUS	3520	Choral Conducting and Literature	3
MUS	3530	Instrumental Conducting and Literature	3
Subtotal			3

Total for the Music Composition Concentration for the Bachelor of Music 82

General Studies for the Bachelor of Music

COURSES			SEMESTER HOURS
SPE	1010	Public Speaking	3
Additional General Studies courses for the degree			30
Subtotal			33

Core	68
Performance Area	4
Ensemble Requirements	7
Conducting/Recital	3
General Studies	33
Electives	5
Total for B.M. in Music	120

Bachelor of Arts in Music

Core Requirements for Bachelor of Arts Majors:

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 Core Requirements for Bachelor of Arts Majors	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	161B	Class Piano I	1
MUS	162B	Class Piano II	1
Subtotal			38

Ensemble Requirements 6
Select six (6) hours from the following:*

COURSES			SEMESTER HOURS
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
Subtotal			6
Total for Music Major			50

General Studies for Bachelor of Arts in Music

COURSES			SEMESTER HOURS
SPE	1010	Public Speaking	3
Additional General Studies courses for the degree			30
Subtotal			33

Core	38
Ensemble Requirements	6
Upper-Division Courses	6
General Studies	33
Electives/Minor	37
Total for B.A. in Music	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
Upper-Division Elective in Music Theory, History, Literature, or Pedagogy			3
Subtotal			23

Ensembles 2
Select two hours from the following:*

MUS	2810	Ensemble*	1
MUS	3810	Ensemble*	1
Total			25

**Note: These course numbers may be repeated for credit. Ensembles must be chosen from those appropriate to the student's private instruction area.*
Total for Music Minor 25

NATIVE AMERICAN STUDIES

Department of Political Science

Native American Studies Minor

This is a minor intended for those students interested in studying Native Americans with specific focus in history, culture, politics and current issues of indigenous peoples within the United States. The minor provides an opportunity for students to bring a unique multidisciplinary perspective to their already chosen area of interest. The minor is offered by the Political Science Department (see pages 192-195).

REQUIRED COURSES			SEMESTER HOURS
NAS	1000	Introduction to Native American Studies	3
NAS	3200/PSC 3200	Native American Politics	3
Subtotal			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/GEG/PSC 3300	Land Use, Culture and Conflict	3
Subtotal			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/AAS/CHS/ICS/WMS 2100	Women of Color	3
Subtotal			6
Total for minor			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

Departments of Human Services and Psychology

Parent Education Minor

The parent education minor is for students entering professions involved with children and families. It provides the necessary knowledge and skills for working with parents. Also, the program addresses a need identified in the community for people with specific preparation for the role of parent educator. Many agencies offer or are interested in offering parent education programs, yet no specific preparation for that role has been available. This minor is designed to 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 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
Total			12

Additional Course Subject Areas Required
Lower-Division:
Introductory Courses . . . 6

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
Total	18

Additional Electives at Any Level
(selected in consultation with and approved by the Philosophy Department) . . . 6
Total . . . 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
Total			9

Electives
A minimum of 11 additional semester hours of which 7 are upper-division courses in philosophy selected in consultation with and approved by the Philosophy Department to make a total of 20 semester hours.

PHYSICS DEPARTMENT

The Physics Department offers course work leading to a bachelor of science and to a bachelor of arts degree. A minor in physics is also offered. Undergraduates preparing for graduate study in physics should take the bachelor of science in physics. Undergraduates preparing for teaching at the pre-college level should take the bachelor of arts in physics. Those undergraduates preparing to work in industry or considering graduate work in engineering should consult with the Physics Department to determine which degree to pursue.

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 Science

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 I	4
PHY	2820	Classical Physics	3
PHY	3011	Modern Physics II	3
PHY	3211	Analytical Mechanics	4
PHY	3411	Thermal Physics	3
PHY	3711	Physics Laboratory I	2
PHY	3811	Quantum Mechanics	3
PHY	4331	Electricity and Magnetism	4
PHY	4611	Computational Physics I	2
PHY	4711	Advanced Physics I Laboratory	2
PHY	4920	Physics Senior Seminar	1
Subtotal			41

Required Ancillary Courses

MTH	1410	Calculus I	4

MTH	2410	Calculus II	4
MTH	2420	Calculus III	4
MTH	3420	Differential Equations	4
Subtotal			16

Students are urged to take one year of general chemistry and one year of electronics. It is strongly suggested that students seriously considering graduate school in physics take at least 6 more semester hours of upper-division physics courses selected in consultation with and approved by the Physics Department.

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.

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 I	4
PHY	2821	Classical Physics	3
PHY	3011	Modern Physics II	3
PHY	3711	Physics Laboratory I	2
PHY	4921	Physics Senior Seminar	1
Subtotal			23

Electives

A minimum of 8 additional semester hours of upper-division physics courses, two (2) of which must be from either PHY 4611 or PHY 4711.

Subtotal			8
Total			31

Required Ancillary Courses for Bachelor of Arts

MTH	1410	Calculus I	4
MTH	2410	Calculus II	4
Total Ancillary Courses			8

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 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 I	4

Electives

A minimum of 5 additional semester hours in upper-division physics courses must be selected in consultation with and approved by the Physics Department 5

Total			19

Required Ancillary Courses for a Minor

MTH	1410	Calculus I	4
MTH	2410	Calculus II	4
Total Ancillary Courses			8

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.

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
Subtotal			15

Electives

A minimum of 21 additional semester hours of political science must be completed. At least 18 of these 21 hours must be upper-division courses (3000- and 4000-level) and must be approved by the department. Generally, students may apply only 12 hours of credit in nonclassroom courses toward the major as approved electives.

Subtotal	21
Total	36

Course Distribution and Area Concentration

Of the 21 elective hours in political science, 12 must be in the student's primary area of study: American politics or international/comparative politics. A minimum of 3 hours must be drawn from the remaining area of concentration and 6 hours can be selected at the student's discretion.

Political Science Minor

REQUIRED COURSES			SEMESTER HOURS
PSC	1010	American National Government	3
PSC	1020	Political Systems and Ideas	3
PSC	3050	Political Theory	3
Subtotal			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.

Subtotal	12
Total	21

Public Administration Minor

Public administration is the study of governmental organizations, their management, and how government policies are formulated and carried out. The Political Science Department offers a minor in public administration available to students interested in a career in government service, to students presently employed in government who wish to increase 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
Subtotal			6
Two of the following courses:			
PSC	3220	Public Policy	3
PSC	3240	Intergovernmental Relations	3
PSC	3260	Politics of Budgeting	3
PSC	3280	Public Personnel Administration	3
ACC	3200	Governmental Accounting	3
Subtotal			6
One of the following courses:			
CMS	2010	Computer Applications for Business	3
MTH	1210	Introduction to Statistics	4
Subtotal			3-4
Internship PSC 4120 or Substitute Course (minimum)			3
Total			18–19

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 give the student a greater variety of choice. Please be sure to check the current online *Class Schedule* on MSCD's Web site (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

COURSES			SEMESTER HOURS
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. Norman Provizer, 303-556-3157.

NATIVE AMERICAN STUDIES MINOR, SEE PAGE 188 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 commonalties 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
Subtotal 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
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
Subtotal			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 157 OF THIS *CATALOG*.

PARENT EDUCATION MINOR, SEE PAGE 189 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.

The needs of metropolitan Denver and other areas warrant a generalist perspective in which students are able to identify the destructive impact of negative interactions between individuals and systems in their environment. Such interactions often have organizations, communities and larger systems. Through professional foundation courses and electives, students acquire skills, knowledge, values and ethics required for beginning Social Work practice. Clients are seen as partners in the process of

working toward mutually agreed upon goals rooted in generalist practice. Using problem solving methods aimed at individual and group empowerment, the impact of historic and current negative valuations of diverse, populations at risk may be slowly mitigated.

Goals of the Social Work Major

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.
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.

Advanced Standing in Graduate School

Students who graduate with a B.S. 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

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

Professional foundation courses (required after students have been accepted into the Social Work Major):

COURSES			SEMESTER HOURS
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
Subtotal			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
Total.			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 (Child Welfare)	5
SWK	481A*	Professional Field Experience II (Child Welfare)	5
Total			54

**Must be completed in an approved county Department of Human Services B child protection unit.*

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 amounts ranging from $8,000-

$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	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	
	-or-		
SWK	3400*	Social Work Macro Practice	
	-or-		
SWK	3450*	Mutual Aid Groups in Social Work	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 (Developmental Disabilities)	5
SWK	481B	Professional Field Experience II (Developmental Disabilities)	5
Total			54

**Major papers and/or assignments will reflect student's area of concentration.*

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	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	
	-or-		
SWK	3400*	Social Work Macro Practice	
	-or-		
SWK	3450*	Mutual Aid Groups in Social Work	4
SWK	3700	Social Work and Early Intervention: Children Birth Through Five	4
SWK	479C	Professional Field Experience I (Early Intervention)	5
SWK	481C	Professional Field Experience II (Early Intervention)	5
Total.			54

**Major papers and/or assignments will reflect student's area of concentration.*

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.

REQUIRED COURSES			SEMESTER HOURS
Social Work Core			35
SWK	3000*	Applied Legal Issues in Social Work	1

SWK 3010 Social Work Services for Children and Adolescents. 4
SWK 3020* Case Management in Social Work Practice
-or-
SWK 3400* Social Work Macro Practice
-or-
SWK 3450* Mutual Aid Groups in Social Work. 4
SWK 479D Professional Field Experience I (Child & Adolescent Mental Health). 5
SWK 481D Professional Field Experience II (Child & Adolescent Mental Health) 5
Total. 54

**Major papers and/or assignments will reflect student's area of concentration.*

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 3000* Applied Legal Issues in Social Work 1
SWK 3020* Case Management in Social Work Practice
-or-
SWK 3400* Social Work Macro Practice
-or-
SWK 3450* Mutual Aid Groups in Social Work. 4
SWK 3500 Foundations for Social Work Practice with Gays and Lesbians. 4
SWK 479E Professional Field Experience I (Gay and Lesbian) 5
SWK 481E Professional Field Experience II (Gay and Lesbian) 5
Total. 54

**Major papers and/or assignments will reflect student's area of concentration.*

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 3000* Applied Legal Issues in Social Work 1
SWK 3020* Case Management in Social Work Practice
-or-
SWK 3400* Social Work Macro Practice
-or-
SWK 3450* Mutual Aid Groups in Social Work. 4
SWK 3600 Social Work with Women 4
SWK 479F Professional Field Experience I (Women). 5
SWK 481F Professional Field Experience II (Women) 5
Total. 54

**Major papers and/or assignments will reflect student's area of concentration.*

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	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	
	-or-		
SWK	3400*	Social Work Macro Practice	
	-or-		
SWK	3450*	Mutual Aid Groups in Social Work	4
SWK	3030	Social Work with the Aging	4
SWK	479G	Professional Field Experience I (Aging)	5
SWK	481G	Professional Field Experience II (Aging)	5
Total			54

**Major papers and/or assignments will reflect student's area of concentration.*

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 Minor 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 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			SEMESTER HOURS
SWK	1010	Introduction to Social Welfare and Social Work	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
Total			11

Concentrations for Family Support in Social Work Minors

A. Family Preservation Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	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 (Family Preservation Services)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

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

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	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 (Developmental Disability Services)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

C. Early Intervention Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000	Applied Legal Issues in Social Work	1
SWK	3020	Case Management in Social Work Practice	4
SWK	3700	Social Work and Early Intervention: Children Birth Through Five	4
SWK	399C	Agency Experience II (Early Intervention Services)	4
Total			24

D. Child and Adolescent Mental Health Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3010	Social Work Services for Children and Adolescents	4
SWK	3020*	Case Management in Social Work Practice	4
SWK	399D	Agency Experience II (Child and Adolescent Mental Health)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

E. Gay and Lesbian Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	4
SWK	3500	Foundations for Social Work Practice with Gays and Lesbians	4
SWK	399E	Agency Experience II (Gay and Lesbian)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

F. Women's Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	4
SWK	3600	Social Work with Women	4
SWK	399F	Agency Experience II (Women's Services)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

G. Aging Services

COURSES			SEMESTER HOURS
Family Support in Social Work Core			11
SWK	3000*	Applied Legal Issues in Social Work	1
SWK	3020*	Case Management in Social Work Practice	4
SWK	3030	Social Work with the Aging	4
SWK	399G	Agency Experience II (Aging Services)	4
Total			24

**Major papers and/or assignments will reflect students' area of concentration*

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. Students will receive written acceptance from the Social Work Department. Many certificate minor courses are offered annually. SWK 1010 and SWK 1020 are required within the first semester and students are required to sign an agreement of completion form when applying to program to ensure appropriate sequencing of classes. Completion models and application materials are available in the Social Work Department and on the department's website, www.mscd.edu/~socwrk.

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.

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: SWK 1010, SWK 1020, SWK 3000, SWK 3020, and the concentration course(s). The remaining 11 credits would count toward the 120 credits required of all students graduating from MSCD.

SOCIOLOGY

Department of Sociology, Anthropology and Behavioral Science

Sociology is the study of society in all of its aspects, from individuals to large organizations. The sociology major emphasizes the applied aspects of the field of sociology. Applied sociology is the use of sociological theory and methods to analyze issues and solve practical problems 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 to graduate school. Contact the Sociology, Anthropology and Behavioral Science 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

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 a department advisor.

Applied Sociology Electives: Applied sociology is the primary focus of the sociology major. The applied focus of the sociology major's required courses can be extended through the selection of the applied sociology electives listed below. These courses emphasize the practice of sociology and the application of sociology to social issues which 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.

The following are courses specifically designed to meet these criteria:

COURSES			SEMESTER HOURS
SOC	3090	Urban Sociology	3
SOC	3080	Social Action Through Art	3
SOC	3810	Population Issues	3
SOC	4220	Society and the Environment	3
SOC	4300	Social Change	3
SOC	4600	Advanced Research in the Social Sciences	3
SOC	4710	Applied Sociology	3

General Sociology Electives:

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. It is recommended that students build an area of emphasis with the help of a sociology advisor. Students should, however, feel free to create their own list of classes that meet the necessity of taking 21 elective hours in sociology. Possible areas of emphasis are listed below.

Suggested Areas of Emphasis:

The Family

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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 Action

COURSES			SEMESTER HOURS
SOC	2010	Current Social Issues	3
SOC	3080	Social Action Through Art	3
SOC	3090	Urban Sociology	3
SOC	3730	Mass Media and Social Behavior	3
SOC	3810	Population Issues	3
SOC	4300	Social Change	3
SOC	4710	Applied Sociology	3

Social Deviance

COURSES			SEMESTER HOURS
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

Social Stratification

COURSES			SEMESTER HOURS
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

The Urban Community

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

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.

The gerontology concentration, requires a student to complete the 15 hours of required courses in the sociology major, and in consultation with and approval by the Sociology, Anthropology and Behavioral Science 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
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			SEMESTER HOURS
SOC	1010	Introduction to Sociology	3

A total of 18 hours is required for the sociology minor: SOC 1010 plus a minimum of 15 additional semester hours in sociology courses, selected in consultation with a department advisor. At least 6 upper-division hours of the minor must be completed at MSCD.

Areas of emphasis are offered as suggestions for students who wish to explore a particular area of sociology in greater depth. Refer to the suggested areas of emphasis listed above which focus on the issues, theories, and research in a specific area of sociology.

SPANISH PROGRAM (SEE MODERN LANGUAGES WITH A CONCENTRATION IN SPANISH ON PAGE 176 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 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
THE	3200	Oral Interpretation	3
Total			9

Broadcast Journalism Concentration

Speech Communication majors with a concentration in Broadcast Journalism cannot minor in Speech Communication or Journalism.

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
Total			39

Broadcast Performance Concentration

Speech Communication majors with a concentration in Broadcast Performance cannot minor in Speech Communication or Journalism.

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
Subtotal			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
Total			35-38

Broadcast Production Concentration

Speech Communication majors with a concentration in Broadcast Production cannot minor in Speech Communication or Journalism.

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 Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video 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

SPE	4440	Advanced Television Production	3
Subtotal			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
Total			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
Subtotal			21
Elective Courses			
SPE	1730	Listening 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
Subtotal			21
Total required for major			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
Subtotal			18
Elective Courses			
SPE	1710	Interpersonal Communication	3
SPE	1730	Listening and Interviewing Communication Skills	3
SPE	2110	Discussion Methods	3
SPE	2160	Organizational Communication Theory	3
SPE	2710	Team and Group Communication	3
SPE	2720	Nonverbal Communication	3
SPE	2730	Communication and Conflict	3
SPE	3010	Advanced Public Speaking	3
SPE	3130	Conference Leadership	3
SPE	3170	Interpersonal Negotiation	3
SPE	3760	Cultural Influences on Communication	3
SPE	4100	Techniques of Persuasion	3
SPE	4160	Advanced Organizational Communication	3
SPE	4700	Communication and the Trainer	3
SPE	4790	Communication Theory Building and Research Methodology	3
Subtotal			24
Total required for major			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
Subtotal			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
Subtotal			21
Total required for major			42

Speech, Language, Hearing Sciences Concentration

Required Courses (for both Option A and Option B):

REQUIRED COURSES			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 Laboratory*	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
Subtotal			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.

REQUIRED COURSES			SEMESTER HOURS
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
Subtotal			12
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
Subtotal			4
Total required for Option A			42

Option B: Designed for students who are seeking licensure in Early Childhood, Elementary and/or Special Education.

REQUIRED COURSES			SEMESTER HOURS
SPE	3570	Diagnostic Procedures in Communication Disorders	3
SPE	3590	Classroom Intervention for Communication Disorders	3
SPE	4500	Clinical Methods in Communication Disorders	3
Subtotal			9
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
Subtotal			3
Total required for Option B			38

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.

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
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.

Speech, Language, Hearing Sciences Minor

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 and Physiology of the Speech and Hearing Mechanism Laboratory	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 Procedures in Communication Disorders	3
SPE	3620	Aural Rehabilitation	3
SPE	4510	Language Disorders	3
SPE	4550	Clinical Practicum and Seminar 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 B.A. or B.F.A. tracks allows students to pursue a major that best meets their goals.

Students who pursue a B.A. 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 B.F.A. in Theatre does not require a minor. Please see additional admission requirements listed under the B.F.A. 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.

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
Subtotal			30

Theatre Major for Bachelor of Arts (B.A.)

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
*Subtotal of Electives** 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 B.A. in Theatre:
B.A. Core 30
B.A. Electives 12
Total for the Major 42

Other Graduation Requirements:
General Studies and Multicultural 33-36
Minor. 18-29
Electives 13
Total for the B.A. in Theatre 120

Theatre Major for Bachelor of Fine Arts (B.F.A.)

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.

Students in the bachelor of arts in Theatre major may apply to either of the B.F.A. Theatre majors by successfully completing the B.F.A. admission requirements.

Required Courses for all B.F.A. Theatre Majors

REQUIRED COURSES . . . . . SEMESTER HOURS
Basic Core 30
ART 1040 Art Appreciation Survey 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
Subtotal 47

(B.F.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
**Must be taken concurrently.*
***Must be taken concurrently.*

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
Subtotal 29
**Ensembles will be assigned based on auditions.*

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 B.F.A. in Music Theatre 4
Summary of hours required for the B.F.A. in Theatre with a concentration in Music Theatre:
B.F.A. Core 47
B.F.A. Required Courses 29
B.F.A. Electives 4
Total hours for the Major with a Concentration in Music Theatre 80

(B.F.A.) Concentration in Applied Theatre Technology and Design (ATTD)

REQUIRED COURSES . . . . . SEMESTER HOURS
ART 1100 Basic Drawing I 3
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
Subtotal 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
*Subtotal of Electives** 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 B.F.A. in Theatre with a concentration in Applied Theatre Technology and Design:
B.F.A. Core 47
B.F.A. Required Courses 14
B.F.A. Electives 19
Total hours for the Major with a Concentration in ATTD 80
Other Graduation Requirements:
General Studies and Multicultural 33-36
Electives 4-7
Total for the B.F.A. in Theatre 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
Subtotal			12

Suggested Theatre elective courses (total of nine credit hours; six hours must be upper division):

COURSES			SEMESTER HOURS
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
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 and Theatre 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 U.S. and elsewhere. Students may elect to minor in women's studies or may choose an individualized degree program major or minor. Several women's studies courses are offered for General Studies course credit or in fulfillment of the Multicultural graduation requirement. Students seeking licensure as secondary education teachers in the social sciences may select from a number of women's studies courses in fulfilling their requirements. Also offered are cooperative education internships in business, government, and community organizations.

Women's studies, valuing a diverse curriculum, fosters the inclusion of material on all women, men of color, and ethnic minorities in courses throughout the College. It identifies and encourages faculty, administrative, and professional mentoring of women students and facilitates collaborative interdisciplinary research on women.

The institute also provides support services for all 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 *A Guide for Students: The Scholarship Application Process*, 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 faculty of the Institute of Women's Studies and Services and the director of the Center for Individualized Learning to initiate planning. The women's studies individualized degree program is appropriate for any student, particularly those who plan to work specifically with female populations. Faculty strongly recommend a cooperative education internship.

A women's studies degree may be combined effectively with courses in management, organizational development, psychology, history, English, education, social work, nursing, human services, law enforcement, advertising, public relations, marketing, finance, and other fields appropriate to the student's interest. Students gain a sensitivity to women's issues and are thus prepared to work with both general and female populations in a variety of areas.

Employment opportunities for women's studies students may be found in managing women's resource centers, rape crisis programs, and battered women's shelters. Students might also work in community counseling and consulting or develop workshops or special programming for women in business and industry. Graduates are also employed in banking and as executives in professional associations. Students who plan to work in higher education, law, or medicine may find a women's studies degree a useful base for graduate or professional study.

Women's Studies 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 to Women's Studies	3
WMS	1650	Women in U.S. History	3
WMS	3310	Women and the Law	3
WMS	3510	Feminist Theory	3
WMS	4750	Senior Seminar	3
Electives			9
Total			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 Web site (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 Web site (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 AVAILABLE

The 16 semester-hour Career and Personal Development certificate program offers a comprehensive learning opportunity for persons who wish to expand their academic and personal knowledge base about career-related issues. The CPD certificate is available for students who seek: 1) professional development opportunities, 2) information about issues such as sex discrimination/ harassment in the workplace, or 3) exploration of careers in general.

Career and Personal Development Certificate

REQUIRED COURSES			SEMESTER HOURS
CPD	2300	Time Management	1
CPD	2310	Stress Management	1
CPD	2320	Self Esteem	1
CPD	2330	Assertiveness	1
CPD	2340	Sex Harassment/Discrimination	1
CPD	2350	Career Evaluation Workshop	1
CPD	2360	Multilevel Wellness	1
WMS/SPE 2770		Gender and Communication	3
WMS/SOC 3220		Race, Gender and Ethnic Groups	3
WMS/MGT 4830		Workforce Diversity	3

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 Institute for Women's Studies and Services at 303-556-8441

the School of Professional Studies

Provides students with the knowledge, skill and performance competencies needed to successfully enter a chosen profession.

METROPOLITAN STATE COLLEGE *of* DENVER

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 . . . . . page 232
•Health Professions . . . . . page 241
•Hospitality, Meeting and Travel Administration . . . . . page 244
•Human Performance, Sport and Leisure Studies . . . . . page 249
•Human Services . . . . . page 257
Center for Addiction Studies
Center for High Risk Youth
Center for Nonprofit Organization Administration
•Nursing . . . . . page 269

Teacher Education

•Early Childhood . . . . . page 288
•Child Development Center (for information call 303-556-6228)
•Elementary . . . . . page 289
•Reading . . . . . page 276
•Secondary . . . . . page 291
•Special Education . . . . . page 278
•Clinical Services (for information call 303-556-2652)
•Teachers for Colorado (for information call 303-556-6228)
•Teacher Application Center
(for information on any licensure program call 303-556-3691) . . . . . page 285

Technology

- Aviation Management and Aviation Technology . . . . . page 221
- Civil Engineering Technology. . . . . page 230
- Surveying and Mapping. . . . . page 281
- Electrical Engineering Technology. . . . . page 235
- Industrial Design. . . . . page 263
- Mechanical Engineering Technology . . . . . page 267
- Technical Communications and Media Production. . . . . page 299

AVIATION AND AEROSPACE SCIENCE DEPARTMENT

Colorado is a premier aviation and aerospace center. Military installations, aerospace industries, private and corporate flight operations, airport authorities and airlines located in Colorado all provide employment opportunities. State and Federal government entities such as the National Transportation Safety Board (NTSB), the Federal Aviation Administration (FAA) and the Colorado Department of Transportation—Aeronautics Division (CDOT) are also involved in aviation in the Denver area. Students have the opportunity to visit these organizations and participate in associated Cooperative Education and Internship programs. Specialized courses taught by personnel from these companies and organizations give students additional opportunities to understand the aviation-aerospace industries.

The bachelor of science degree programs described below are designed for students seeking careers as professional pilots, as aviation-aerospace operations professionals, or as aviation-aerospace managers. All courses are developed in cooperation with the FAA, industry advisors, and prospective employers. Students completing the FAA FAR (Federal Aviation Regulations) Part 141-approved courses are eligible for the associated FAA knowledge examinations.

Students holding an FAA Airframe and Powerplant (A&P) certificate may apply for 25 hours credit toward a Bachelor of Science degree, provided that evidence of the A&P certificate is presented with the application. (Note: Courses leading to Airframe and Powerplant certification are not offered by MSCD.)

The Aviation and Aerospace Science Department (AVS) includes the World Indoor Airport (WIA), a unique flight simulation laboratory. The WIA is an integrated flight and air traffic control simulator lab featuring many different types of FAA-approved flight training devices. A crew resource management lab, flight planning station, and student computer tutorial lab are the other components of the WIA.

Bachelor of Science Degrees

The Aviation and Aerospace Science Department offers baccalaureate degree programs with majors in the following areas:

Aviation Management (AMG)

Aerospace Management Concentration
Aerospace Maintenance Management Concentration

Aviation Technology (ATV)

Professional Flight Officer Concentration
Corporate and General Aviation Concentration
Aerospace Operations Concentration

Minors

Airframe and Powerplant Mechanics
Aviation Management
Aviation Technology
Private Pilot

These programs combine thorough, practical, theoretical, and technical training with a general college education to prepare graduates for a wide variety of careers in the aviation and aerospace industries. These four-year baccalaureate programs offer the two-plus-two concept – a bachelor of science degree program built upon an Associate of Applied Science two-year degree. This enables a community/junior college graduate in an aviation program to readily transfer to MSCD and earn a Bachelor of Science degree in the College's AVS programs. To be awarded the Bachelor of Science degree, the student must meet the College's general requirements listed in this Catalog under Requirements for All Bachelor's Degrees. Students should schedule an advising session with an AVS faculty member early in their first semester and each semester thereafter.

FAA FAR Part 141-Approved Ground School

MSCD's Aviation and Aerospace Science Department is a fully certificated and FAA FAR Part 141-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 Aviation and Aerospace Science Department before enrolling in any "flight" course (AES 1500, AES 2500, AES 3520, AES 4500, AES 4510, AES 4520, AES 4530 and AES 4550). Aviation technology students may obtain their FAA flight certificates from any FAA training program, under FAR Part 61, 141 or 142, and submit the certificates to the Aviation and Aerospace Science department before graduation (certain limitations regarding approved flight training facilities may apply in the Professional Flight Officer concentration – see department for details). Students who wish to obtain additional financial aid for flight training should consult with the Financial Aid office *and* the Aviation and Aerospace Science Department and obtain permission to enroll in the appropriate flight course. The flight courses are graded as Satisfactory or Unsatisfactory and cannot be used as electives for any concentration.

The cost of flight training is in addition to regular tuition and other college fees. This cost varies depending upon how frequently a student is able to fly and the time required to become proficient. The college instructor helps the student achieve an understanding of the relationship of flight theory to flight practice to acquire the knowledge required to meet FAA certification standards.

Credit by Examination Procedures

The procedure 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 Aviation and 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 Aviation and 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 they enroll in an Aviation and Aerospace Science Department 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
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 Aviation and Aerospace Science Department have five options, two in Aviation Management (AMG) and three in Aviation Technology (ATV). All students must complete the 34 hours of General Studies specified by the Aviation and Aerospace Science Department. *The Aviation and Aerospace Science Department Handbook*, available in the department office, SS 102, lists the required General Studies courses, each major and a suggested course sequence for each, as well as AVS policies and procedures.

A grade of a least "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 to General Studies. The program requirements for each major follow.

GENERAL STUDIES REQUIRED COURSES . . . . . SEMESTER HOURS
Level I
Composition: ENG 1010 and ENG 1020 6
Mathematics: MTH 1110 or MTH 1310 or MTH 1400 or MTH 1410 4
Communications: SPE 1010 3
Level II
Historical: Approved Elective 3
Arts and Letters: Approved Electives 6
Social Sciences: ECO 2010 and ECO 2020 6
Natural Sciences: PHY 1250 6
General Studies Total 34

Aviation Management (AMG) Major

COURSES . . . . . SEMESTER HOURS
Aerospace Management Concentration (includes business minor) 85-86
Aerospace Maintenance Management Concentration. 85-86
(includes 25 semester hours for Airframe and Powerplant certificate)

Aviation Technology

COURSES . . . . . SEMESTER HOURS
Professional Flight Officer Concentration* 86
(includes 18-credit non-AES minor or airframe and powerplant mechanics minor)
Corporate and General Aviation Concentration** 86
(includes 18-credit non-AES minor or airframe and powerplant mechanics minor)
Aerospace Operations Concentration 86
(includes 18-credit non-AES minor)

**Professional Flight Officer majors must have an FAA Commercial Pilot Certificate with instrument and multiengine ratings and the Certified Flight Instructor and Instrument Flight Instructor certificates or a Type Rating before graduation.*

***Corporate and General Aviation majors must have an FAA Commercial Pilot Certificate with an instrument rating and either the Certified Flight Instructor or the Advanced Ground Instructor certificate before graduation.*

Aviation Management Major for Bachelor of Science

Aerospace Management Concentration

This concentration integrates business and management courses with an aviation curriculum and a business minor to prepare the graduate for any of several aviation or aerospace business professions.

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	3880	Aviation Security	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 Systems Safety Program Management	3
AES	4950	Aviation and Aerospace Science Management Strategies	
–or–			
COM	4790	Senior Seminar in Technical Communications	3
Subtotal			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
Subtotal			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			18
Total			120

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	3880	Aviation Security	3
AES	4120	Air Carrier Systems	4
AES	4870	Aviation Systems Safety Program Management	3
AES	4950	Aviation and Aerospace Science Management Strategies	
–or–			
COM	4790	Senior Seminar in Technical Communications	3
Subtotal			51
Plus a minimum of 3 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

AES	4150	Transport Category Aircraft Systems	2
Subtotal			3
General Studies for All AES Majors			34
Additional Required Course (8 hours minimum)			
COURSES			SEMESTER HOURS
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
Subtotal			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
Subtotal			15
Computer Information Systems			
CMS	2010	Computer Applications for Business	3
CMS	3270	Advanced Computer Applications for Business	3
CMS Approved Elective			3
Subtotal			9
Total Hours Required			120–121

Aviation Technology (ATV) Major for Bachelor of Science

Professional Flight Officer 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	4120	Air Carrier Systems	4
AES	4130	Flight Officer Duties and Responsibilities	4
AES	4370	Advanced Navigation Systems	3
AES	4860	Aviation Safety	3
AES	4930	Professional Flight Standards Seminar	3
		Professional Pilot Documentation	
		Multiengine, CFI, CFII, or Type Rating Documentation	
Subtotal			*56*
AES Electives*			12
Subtotal			*68*

**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 credits) 18-31
Total Hours Required 120-133

Corporate and 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	3880	Aviation Security	3
AES	4040	Aircraft Performance	3
AES	4370	Advanced Navigation Systems	3
AES	4860	Aviation Safety	3
COM	2610	Introduction to Technical Writing	3
AES	4930	Professional Flight Standards Seminar	
	–or–		
COM	4790	Senior Seminar in Technical Communications	3
		CFI or Advanced Ground Instructor Certificate	0
		Professional Pilot Documentation	0
Subtotal			54

Plus a minimum of 14 semester hours selected from the following:
AES Approved electives*

CMS	2010	Computer Applications for Business	3
CMS	3270	Advanced Computer Applications for Business	3
MTH	1210	Introduction to Statistics	4
	-or-		
CMS	2300	Business Statistics	3
MTH	1320	Calculus for the Management and Social Sciences	3
Subtotal			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 credits) 18-31
Total Hours Required 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	3880	Aviation Security	3
AES	4040	Aircraft Performance	3

AES 4860 Aviation Safety
-or-
AES 4870 Aviation Systems Safety Program Management . . . 3
COM 2610 Introduction to Technical Writing . . . 3
COM 4790 Senior Seminar in Technical Communications
–or–
AES 4930 Professional Flight Standards Seminar
–or–
AES 4950 Aviation and Aerospace Science Management Strategies . . . 3
Subtotal . . . 36

Plus a minimum of 32 semester hours selected from the following:
AES Approved Electives*
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
MGT 4530 Organizational Behavior . . . 3
Subtotal . . . 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

These are designed to afford majors in other disciplines the opportunity to develop an understanding of the aviation and aerospace world. AVS majors may not elect the aviation management or aviation technology minors with the exception that aviation technology 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
Subtotal . . . 9

Plus 12 hours selected from:
AES 3000 Aircraft Systems and Propulsion . . . 3
AES 3230 Airline Management . . . 3
AES 3240 Airline Planning . . . 3
AES 3850 Human Factors and Physiology of Flight . . . 3
AES 4200 Airport Planning . . . 3
AES 4210 Airport Management . . . 3
AES 4230 General and Business Aviation Operations . . . 3
AES 4240 Air Cargo . . . 3
AES 4870 Aviation Systems Safety Program Management . . . 3
AES 4910 Aviation Career Planning . . . 3
Subtotal . . . 12
Total . . . 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
Total			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	
–or–			
AES	4040	Aircraft Performance	3
Private Pilot Documentation			0
Total			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
Total			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 with the application for credit.

AIR FORCE ROTC

Air Force ROTC (UC-B) Folsom Stadium, 218
University of Colorado at Boulder
Boulder, Colorado 80309
303-492-8351

U.S. Air Force ROTC offers several programs leading to a commission in the U.S. Air Force upon receipt of at least a baccalaureate degree.

Standard Four–Year Program

This program is in three parts: the General Military Course (GMC) for lower–division students; the Professional Officer Course (POC) for upper-division students; and the Leadership Laboratory (LLAB), attended by all cadets. Completion of the GMC is a prerequisite for entry into the POC. Completion of a four-week summer training course is required prior to commissioning.

Modified Two–Year Program

This program is offered to full–time, regularly enrolled degree students. It requires at least two years of full–time college (undergraduate or graduate level, or a combination). Those selected for this program must complete a six–week field–training program during the summer months as a prerequisite for entry into the POC the following fall semester.

Leadership Lab

All AFROTC cadets must attend LLAB (one and one–half hours per week). The laboratory involves a study of Air Force customs and courtesies, drills and ceremonies, career opportunities, and the life and work of an Air Force junior officer.

Other AFROTC Programs

Other programs are frequently available based on current Air Force needs. Any AFROTC staff member in Boulder at 303-492-8351 can discuss the best alternatives. Interested students should make initial contact as early as possible because selection is on a competitive basis. There is no obligation until a formal contract is entered.

Air Force College Scholarship Program

Students participating in Air Force ROTC may be eligible to compete for Air Force ROTC college scholarships. Students selected for this program are placed on scholarships that pay tuition, book allowances, nonrefundable educational fees, and a subsistence of $250-$400 per month, tax–free. All 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 pre-med or nursing scholarships and programs. These scholarships and programs can lead to a rewarding career as an Air Force officer, serving as a doctor or nurse.

AFROTC Course Credit

AFROTC courses 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

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 program coordinator 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 1410, MTH 2410, MTH 2420, COM 2610, PHY 2311, PHY 2321, PHY 2331, PHY 2341, and CHE 1100 with a grade of “C” or better.

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	Introduction to Civil Engineering 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	3150	Thermodynamics	3
CET	3160	Mechanics II—Dynamics	3
CET	3170	Introduction to Structural Analysis	3
CET	3180	Fluid Mechanics I	3
CET	3190	CET Fluid Mechanics II	3
CET	3330	Environmental Technology Processes	3
CET	4130	Soil Mechanics (Senior Experience)	3
COM	2610	Introduction to Technical Writing	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
Subtotal			58
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	1410	Calculus I	4
MTH	2410	Calculus II	4
MTH	2420	Calculus III	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
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
Subtotal			51

**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			SEMESTER HOURS
CET	4120	Concrete Design I	3
CET	4140	Concrete Design II	3
CET	4400	Steel Design I	3
CET	4410	Steel Design II	3
CET	4450	Timber Design	3
Approved Upper-Division Technical Elective*			3
Total			18

Construction Concentration

REQUIRED TECHNICAL STUDIES			SEMESTER HOURS
CET	3110	Construction Estimating	3
CET	4120	Concrete Design I	3
CET	4400	Steel Design I	3
CET	4570	Construction Law	3
SUR	2530	Route Surveying	4
Approved Upper-Division Technical Elective*			3
Total			19

**May be used to satisfy the mathematics minor requirement.*

Mathematics Minor (Optional) recommended for CET Majors

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	3130	Advanced Matrix Methods for the Physical Sciences	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
Total			24

CRIMINAL JUSTICE AND CRIMINOLOGY DEPARTMENT

The present and future needs of U.S. society require greater numbers of highly educated people in criminal justice agencies at all levels of government. Criminal justice employers demand applicants who have had professional education. There is considerable interest among criminal justice practitioners to increase professionalism through education. The curriculum provides quality criminal justice education and prepares students interested in the study of police, law enforcement, probation and parole, corrections, juvenile agency work, criminal justice administration and private/corporate security. Course offerings within these professional fields are related to other programs at the College, including human services, business and the social sciences.

Criminal Justice and Criminology Major for Bachelor of Science

The bachelor of science in criminal justice and criminology is designed to provide 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.

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
Subtotal			33

Required Electives	
CJC*	18
Social Science**	12
Subtotal	30

** Electives selected in consultation with and approved by the department advisor allow for development of concentration or specialty areas or a 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
Total	120

There is no minor required for the CJC major.

Minor in Criminal Justice and Criminology

COURSES			SEMESTER HOURS
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
Total			18

DIGITAL MEDIA

Departments of Art, Communication Arts and Sciences, and Technical Communications and Media Production

Digital Media Minor

The Digital Media Minor includes courses from the departments of Art, Communication Arts and Sciences, and Technical Communications and Media Production. 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 LAS 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

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
Required Core Total			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
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/Web Production	3
COM	4450	Advanced Multimedia/DVD Production	3

Motion Media Concentration

COURSES			SEMESTER HOURS
ART	3410	Digital Video Art (prerequisite ART 2180)	3

COM	2400	Basic Nonlinear Video Editing	3
COM	3400	Intermediate Nonlinear Video Editing	3
COM	4401	Advanced Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video Production	3
COM	3420	Intermediate Single Camera Production	3
COM	4420	Advanced Single Camera Video 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	Scriptwriting for Video	3
COM	3470	Writing for Interactive Media	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
Total for Minor in Digital Media (6 hrs. Upper Division required)	24

ELECTRICAL ENGINEERING TECHNOLOGY PROGRAM

Department of Engineering Technology

Electrical Engineering Technology graduates are taught a balance of theory and application with the 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 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.

As a requirement for graduation all candidates for the Bachelor of Science in Electrical Engineering Technology degree must take and pass a comprehensive assessment examination to demonstrate competency in core subject areas as well as in material relevant to their area of concentration.

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, MD 21202, Telephone: (410) 347-7700; Fax: 410-625-2238; www.abet.org.

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
Subtotal			56

Additional Course Requirements			
COURSES			SEMESTER HOURS
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 I Laboratory	1
PHY	2331*	General Physics II	4
PHY	2341*	General Physics II Laboratory	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
Subtotal			54
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:

COURSES			SEMESTER HOURS
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 FOR THE CONCENTRATION			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
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 FOR THE CONCENTRATION			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 (The sequence EET 1140 and EET 1150 may be substituted.)	3
EET	2310	Digital Circuits I	4
EET	2340	Technical Programming Applications (Any one of the following may be substituted: CSI 1050, CSS 2227, CMS 2110, MTH 1510 or MET 3210)	3
EET	3010	Industrial Electronics (The sequence EET 2140 and EET 2150 may be substituted)	4
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
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
Total			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 Fluid Mechanics II	
	-or-		
EET	4320	Digital Filters	3
EET	3630	Electromagnetic Fields	3
MET	3110	Thermodynamics	3
PHI	3360	Business Ethics	
	-or-		
PHI	1030	Ethics	3
Total			28

ENGINEERING TECHNOLOGY DEPARTMENT

The Engineering Technology Department houses:

Civil Engineering Technology . . . . . page 230
Electrical Engineering Technology . . . . . page 235
Industrial Design . . . . . page 263
Mechanical Engineering Technology . . . . . page 267
Surveying and Mapping . . . . . page 281

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.

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 seeking a major concentration in Gerontology should seek academic advising in one of the above major departments. 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 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
HES	4520	Internship in Gerontology	3-6
Subtotal			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 coursework. 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

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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
Total hours for Gerontology Minor			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 Psychology.

Sociology with a Gerontology Concentration Major: See an advisor in the Department of Sociology, Anthropology and Behavioral Science for information on this program.

Certificate Program Available:

Gerontology

REQUIRED CORE			SEMESTER HOURS
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

Liberal Arts Orientation

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
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. . . . . pages 156, 239
- Health Care Management . . . . . page 242
- Health Education Service Courses . . . . . page 243
- Holistic Health and Wellness. . . . . pages 156, 244
- Nutrition . . . . . page 275

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, nutrition, and Holistic Health and Wellness Education, and coordinates the interdisciplinary minor, Gerontology. Health education services courses 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 pre-requisite. All general requirements of the College for a bachelor of science degree must be met prior to graduation.

Health managers are employed in a variety of facilities and organizations: hospitals; nursing homes; health departments; educational institutions; health maintenance organizations; wellness programs; industrial health programs; the insurance industry; and governmental agencies at local, state, and national levels.

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 Practicum*), 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
Total			29

REQUIRED SUPPORT COURSES			SEMESTER HOURS
ACC	1010	Accounting for Non-Business Majors	
		–or–	
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
Total			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, obtained a Paramedic Certificate and received state licensure as a paramedic may use this in lieu of the minor. Health care management majors who desire to work in institutions providing care to the elderly are encouraged to take the gerontology minor.

Health Care Management Minor

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
Subtotal			15
Required Support Courses			
If taking HCM 4030 select either			
ACC	1010	Accounting for Non-Business Majors	
		–or–	
ACC	2010	Principles of Accounting I	3
–or–			
If taking HCM 4040, select			
ECO	2020	Principles of Economics—Micro	3
Approved Computer Course			3
Total			21

Health Education Services

This group of courses is designed to meet special needs of non-health majors, as well as health majors. An 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.

COURSES			SEMESTER HOURS
HES	1050	Dynamics of Health*	3
HES	1230	Understanding Medical Terminology	1
HES	2000	Health Politics and Policy*	3
HES	2150	Complementary and Alternative Medical Therapies**	3
HES	2180	AIDS: Acquired Immune Deficiency Syndrome*	3
HES	2750	Introduction to Holistic Health	3
HES	3050	Therapeutic Touch	3
HES	3070	Parental Health Care Issues	3
HES	3170	Introduction to Homeopathy	3
HES	3310	Introduction to Traditional Chinese Medicine	3
HES	3350	Ayurveda Therapy I: Introduction to Basic Principles	3
HES	3450	Dynamics of Disease**	3
HES	3600	Ethical Decision Making in Health Care	3
HES	3750	Clinical Pathophysiology	3

HES	3810	Physiology of Aging	3
HES	3820	Health Care Counseling	3
HES	4350	Ayurveda therapy II: Prevention and Management of Chronic Conditions	3
HES	4520	Internship in Gerontology	3-6
HES	4750	Clinical Pathophysiology II	3
HES	4970	Internship in Holistic Health and Wellness	3

**meets Level II–General Studies, Social Sciences requirement*
***meets Level II–General Studies, Natural Science requirement*

NUTRITION MINOR, SEE PAGE 275 OF THIS *CATALOG*

EATING DISORDERS MINOR, SEE PAGE 275 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
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.

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, adventure travel, and ecotourism companies.

2. Provide instruction and professional assistance to students.
3. Assist students in the development of professionalism and an attitude of continued professional growth and individual development.
4. Assist students to recognize their responsibilities as members of the hospitality industry and society.
5. Prepare students for graduate study in HMTA and related fields.
6. Provide seminars and workshops for the hospitality industry within Colorado and beyond.
7. Conduct applied research in the field of hospitality.
8. Increase the quality and accessibility of hospitality education to the citizens of Colorado and beyond.
9. Provide professional assistance to the hospitality industry and citizens of Colorado.

Curriculum

The Hospitality, Meeting and Travel Administration bachelor of arts degree requires 120 credit hours.

To be awarded a degree, the student must complete the departmental requirements, General Studies, HMTA core and HMTA concentration requirements. There are four concentrations to choose from: hotel, restaurant, meeting and travel administration. The student must pick at least one concentration from the major. 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.

- Enroll in six hours of electives in non-HMTA programs.
- Maintain a grade point average of 2.5.
- 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.
- 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 or through three credits of another approved language and earning a grade of "C" or better.*

Hospitality, Meeting and Travel Administration Major for Bachelor of Arts

General Studies Course Requirements

Level I - Skills

COURSES			SEMESTER HOURS
Freshman Composition (minimum 6 semester hours)			
ENG	1010	Freshman Composition: The Essay	3
ENG	1020	Freshman Composition: Analysis, Research, and Documentation	3
Mathematics (minimum 3 semester hours)			
MTH	1210*	Introduction to Statistics	4
Communications (minimum 3 semester hours)			
SPE	1010	Public Speaking	3

Level II - Content Areas

COURSES			SEMESTER HOURS
Historical (minimum 3 semester hours)			
XXX		select any course from Level II History approved list	3
Arts and Letters (minimum 6 semester hours)			
XXX		select courses from Level II Arts and Letters approved list	6
Social Sciences (minimum 6 semester hours)			
ECO	2010*	Principles of Economics–Macro	3
PSY	1001*	Introductory Psychology	3
Natural Sciences (minimum 6 semester hours)			
NUT	2040*	Introduction to Nutrition	3
XXX		select any courses from Level II Natural Science approved list	3
General Studies total credit hours			34

**Course has prerequisites; check current MSCD College Catalog for requirements*

Multicultural Graduation Requirement

COURSES			SEMESTER HOURS
HMT	1850	Multicultural/Multinational Cultural Adjustment/Readjustment	3

(any MSCD approved multicultural course will satisfy this requirement)

Senior Experience Graduation Requirement

COURSES			SEMESTER HOURS
HMT	4040	Senior Hospitality Research Experience*	3
Total			3

**Course has prerequisites; check current MSCD College Catalog for requirements.*

Major Core Requirements

REQUIRED COURSES			SEMESTER HOURS
ACC	2010	Principles of Accounting I*	3
CMS/CSS	1010	Introduction to Computers	3
HMT	1030	Principles of Meeting and Travel Administration	3
HMT	1050	Principles of Hotel and Restaurant Administration	3
HMT	2860	Sustainable Tourism	3
MGT	2210	Legal Environment of Business I	3
MGT	3000	Organizational Management*	3
HMT	3570	Hospitality Marketing*	3
HMT	3580	Hospitality Tourism Law*	3
HMT	3590	Hospitality Administration for Profit*	3
HMT	4640	Hospitality Customer Service*	3
HMT	4650	Hospitality Employee Resource Development*	3
HMT	4860	Security and Loss Prevention for the Hospitality Industry*	3
Total			39

**Course has prerequisites; please check the current MSCD College Catalog for requirements.*

Hotel Administration Concentration

REQUIRED COURSES			SEMESTER HOURS
HMT	2500	Applied Hotel/Restaurant Operations	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	3670	Food Service Purchasing*	3
HMT	4660	Training and Development in Hospitality*	3
Total			24

**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 17 credit hours of choice. See the list of recommended elective courses and a faculty advisor.

Restaurant Administration Concentration

REQUIRED COURSES			SEMESTER HOURS
HMT	1600	Food Production, Service, Sanitation, and Safety	3
HMT	1610	Kitchen Procedures and Production I	4
HMT	1620	Kitchen Procedures and Production II	4
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
Total			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 restaurant administration concentration need to complete 15 credit hours of electives. See the list of recommended elective courses and a faculty advisor.

Meeting Administration Concentration

REQUIRED COURSES			SEMESTER HOURS
HMT	2760	Meeting Administration I*	3
HMT	3750	Hospitality Promotion Materials: Analysis and Design	3
HMT	3760	Meeting Administration II*	3
HMT	3860	Incentive Travel*	3
HMT	4730	Principles of Negotiation*	3
HMT	4790	Seminar in Meeting Administration: Variable Topics*	3
HMT	4810	Tour Management*	4
HMT	4830	Corporate Travel Management*	3
Subtotal			25

**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 16 credit hours of choice. See the list of recommended elective courses and a faculty advisor.

Travel Administration Concentration

REQUIRED COURSES			SEMESTER HOURS
HMT	1810	Ticketing and Reservations Procedures	3
HMT	2840	Tour Planning	3

HMT	3870	Cruise Development, Marketing and Sales*	3
HMT	3860	Incentive Travel*	3
HMT	3890	Cases in Corporate Travel Management	3
HMT	4810	Tour Management*	4
HMT	4830	Corporate Travel Management*	3
HMT	4890	Seminar in Travel Administration: Variable Topics*	3
Total			25

**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 16 credit hours of choice. See the list of recommended elective courses and a faculty advisor.

Recommended Electives

COURSES			SEMESTER HOURS
GEG	1000	World Geography	3
JRN	1100	Beginning Reporting and News Writing*	3
HMT	2000	Internship*	3
ANT	2330	Cross-Cultural Communication*	3
HMT	2500	Applied Hotel/Restaurant Operations*	3
ECO	2020	Principles of Economics–Micro*	3
MKT	3000	Principles of Marketing*	3
MKT	3110	Advertising Management*	3
MGT	3020	Fundamentals of Entrepreneurship*	3
AES	3230	Airline Management*	3
FIN	3320	Entrepreneurial Finance*	3
HMT	3640	Healthy Cooking Techniques*	3
MKT	3710	International Marketing*	3
HMT	4000	Internship II*	3
HMT	4010	Internship III*	1
AES	4230	General and Business Aviation Operations*	3
HMT	4500	Hospitality Sales*	3
HMT	4610	Advanced Study of Wine*	3

**Course has prerequisite; please check the current MSCD College Catalog for requirements.*

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 concentration 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 and Restaurant Administration	3
HMT	2500	Applied Hotel/Restaurant Operations	3
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
Total			24

Restaurant Administration Minor

REQUIRED COURSES			SEMESTER HOURS
HTM	1050	Principles of Hotel and Restaurant Administration	3
HMT	1610	Kitchen Procedures and Production I	4
HMT	1620	Kitchen Procedures and Production II	4
HMT	3580	Hospitality Tourism Law	3
HMT	3600	Food and Beverage Cost Controls	3
HMT	3660	The Restaurant from Concept to Operation	3
HMT	3670	Food Service Purchasing	3
HMT	4650	Hospitality Employee Resource Development	3
Total			26

Meeting Administration Minor

REQUIRED COURSES			SEMESTER HOURS
HMT	1030	Principles of Meeting and Travel Administration	3
HMT	1810	Ticketing and Reservations Procedures	3
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 Administration: Variable Topics	3
Total			27

Travel Administration Minor

REQUIRED COURSES			SEMESTER HOURS
HMT	1030	Principles of Meeting and Travel Administration	3
HMT	1810	Ticketing and Reservations Procedures	3
HMT	2760	Meeting Administration I	3
HMT	2840	Tour Planning	3
HMT	3870	Cruise Development, Marketing and Sales	3
HMT	4810	Tour Management	4
HMT	4830	Corporate Travel Management	3
HMT	4890	Seminar in Travel Administration: Variable Topics	3
Total			25

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 SEE PAGE 265 OF THIS *CATALOG*.

Human Performance and Sport Major for Bachelor of Arts

K–12 Physical Education Concentration

General Studies (Required courses for K-12 Physical Education)

COURSES			SEMESTER HOURS
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	3
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			
HES	1050	Dynamics of Health	3
EDS	3200	Educational Psychology Applied to Teaching	3
Multicultural			
EDS	3110	Processes of Education in Multicultural Urban Secondary Schools	3
Subtotal			42

Courses in the Major for K-12 Physical Education

COURSES			SEMESTER HOURS
Professional Activity Courses (Required)			
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
Approved HSL elective appropriate for teaching secondary schools			2
Total			8
A. Individual Sports (4 credits required)			
HSL	1010	Skills and Methods of Teaching Tumbling and Gymnastics	2
HSL	1200	Skills of Swimming, Water Safety and Water Exercise	2
HSL	1210	Skills and Methods of Teaching Archery, Track and Field, and Fitness	2
HSL	1220	Skills and Methods of Teaching Bowling, Golf and Recreational Activities	2
HSL	1230	Skills and Methods of Teaching Tennis, Pickleball and Badminton	2
HSL	1240	Skills and Methods of Teaching Wrestling and Personal Defense and Yoga	2
HSL	1400	Skills and Methods of Teaching Camping, Backpacking and Orienteering	2
Total			4
B. Team Sports (4 credits required)			
HSL	1100	Skills and Methods of Teaching Team Handball, Lacrosse, and Basketball	2
HSL	1110	Skills and Methods of Teaching Soccer, Volleyball and Softball	2
HSL	1120	Skills and Methods of Teaching Basketball and Softball	2
HSL	1130	Skills and Methods of Teaching Flag Football, Field Hockey and Floor Hockey	2
HSL	1410	Skills and Methods of Teaching Teambuilding, Initiative and Ropes Course Activities	2
Total			4
Theory Classes			
HPS	1600	Introduction to Human Performance and Sport	2
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	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	4620	Adapted Human Performance and Sport Activities	3
HPS	4660	Legal Liability for Physical Educators, Coaches and Administrators	3
EDS	3120	Field Experiences in Multicultural Urban Secondary Schools	2
RDG	3280	Teaching Literacy Skill Development in the Content Areas	4
EDT	3610	Applications of Educational Technology	2
EDU	4190	Student Teaching and Seminar: Elementary K-6	6
EDS	4290	Student Teaching and Seminar: Secondary 7-12	6
Approved Elective			1
Subtotal			62
Total Minimum Hours for K-12 Physical Education Major			120

**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 & 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 Education Program (ATEP)

Athletic Training Concentration

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 acknowledgement 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.

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 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.
- The MSCD Athletic Training Education Program has successfully completed 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 [1]	Foundations of Athletic Training	3
HPS	2221 [1]	Athletic Training Clinical Experience I	2
HPS	2790	Pathology of Athletic Injury/Illness	3
HPS	2860 [2]	Therapeutic Modalities in Sports Medicine	3
HPS	2861 [2]	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 [3]	Upper Body Injury Evaluation	3
HPS	3831 [3]	Athletic Training Clinical Experience III	2
HPS	3850 [4]	Lower Body Injury Evaluation	3
HPS	3851 [4]	Athletic Training Clinical Experience IV	2
HPS	4660	Legal Liability for Physical Educators, Coaches and Administrators	3
HPS	4750 [5]	Upper Body Injury Rehabilitation	3
HPS	4751 [5]	Athletic Training Clinical Experience V	2
HPS	4770 [6]	Lower Body Injury Rehabilitation	2
HPS	4771 [6]	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

[1] *HPS 2220 & HPS 2221 must be taken concurrently in the fall semester.*
[2] *HPS 2860 & HPS 2861 must be taken concurrently in the spring semester.*
[3] *HPS 3830 & HPS 3831 must be taken concurrently in the fall semester.*
[4] *HPS 3850 & HPS 3851 must be taken concurrently in the spring semester.*
[5] *HPS 4750 & HPS 4751 must be taken concurrently in the fall semester.*
[6] *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

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

BASIC THEORY COURSES

COURSES			SEMESTER HOURS
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 Rescue/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	3990	Field Experience, Sport Industry Operations	3
HPS	4600	Organization, Administration and 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	4730	Sociology of Athletics in American Society	3
MGT	3000	Organizational Management	3
MKT	3500	Sports Marketing	3

Subtotal 34
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

COURSES			SEMESTER HOURS
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

COURSES			SEMESTER HOURS
HPS	1600	Introduction to Human Performance and Sport	2
HPS	2060	Emergency Rescue/First Responder & CPR*	3
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
Total			23

**and/or a valid Advanced American Red Cross Card and 3 hours of HPSL Department electives*

Coaching Concentration

COURSES			SEMESTER HOURS
HPS	1623	Prevention and Care of Athletic Injuries	3
HPS	1640	Physical Fitness Techniques and Programs	2
HPS	2720	Fundamentals of Coaching	2
HPS	3700	Psychology of Coaching	2
HPS	3720	Science and Art of Coaching and Athletic Administration	3
HPS	3990	Field Experience in Human Performance and Sport (Coaching)	3
HPS	4660	Legal Liability for Physical Educators, Coaches and Administrators	3
HSL	1020	Skills and Methods of Teaching Weight Training	2
LES	4730	Sociology of Athletics in American Society	3
Total			23

Dance Concentration

COURSES			SEMESTER HOURS
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
Total			19-20

Adult Fitness and Exercise Science Concentration

COURSES			SEMESTER HOURS
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
Total			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

COURSES			SEMESTER HOURS
CJC	3510	Drug Abuse: Legal Issues and Treatment	3
HPS	2020	Community Health	3
HPS	2060	Emergency Rescue/First Responder & 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
Total			21

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.

Activities Assistant for Older Adults

COURSES			SEMESTER HOURS
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.

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. Human Services' six concentrations are based on a counseling and mental health services 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 counseling and mental health services, high-risk youth, drug and alcohol counseling, domestic violence counseling, paramedic or nonprofit organization administration. Field instruction at community agencies further textbook learning and provide networking opportunities for students.

Graduates with degrees in human services are qualified to work in a variety of settings, including community mental 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 to graduates. Over half of our graduates go on to complete graduate degrees and licensure or practice requirements in human services, marriage and family counseling, psychology, 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 baccalaureate 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
HSP	4790	Professional Internship	12
Core Total			47

HSP prefix: Human Services Professional

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 counseling licensure requires the completion of a graduate degree, successfully passing a comprehensive examination, and a period of supervised practice, by a licensed mental health professional.

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:

- 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
Subtotal 67-68
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
Subtotal of electives (minimum) 2

Total hours for the major with Addiction Studies Concentration 69-70
General Studies 33
Electives 17-18
Total for Degree 120
**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.

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	The 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:

COURSES			SEMESTER HOURS
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 (CHRYS) 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
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 course for these two hours with the approval of the Director of the Center for High Risk Youth Studies. Students may substitute MDL 1610, American Sign Language I, or other language courses as relevant. If a student already possesses the necessary language proficiencies described (as demonstrated by an oral or*

demonstration examination with appropriate language-related faculty) he or she may elect to substitute two semester hours of upper division human services 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/CHRYS 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 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 be enrolled 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
Total for the Degree 120

Minor in Human Services

The minor consists of a minimum of 24 semester hours, eight of which must be upper division. The student must present a proposal of selected courses from the Human Services curriculum to the department chair for consideration and approval. Please see an advisor for suggested courses for the minor in human services.

PARENT EDUCATION MINOR, SEE PAGES 189, 275 OF THIS *CATALOG*.

INDUSTRIAL DESIGN PROGRAM

Department of Industrial Design

The industrial design major for the bachelor of science is accredited by the National Association of Schools of Art and Design (NASAD). Industrial Designers create new product shapes and 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 and 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 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 students to compete and succeed today and in the future.

All students must pass through an assessment portfolio review before passing on to junior-level status. The details of this process are outlined on the I.D. Program Web site and are available in hard copy from the ET/ID Department office.

Industrial Design Major for Bachelor of Science

(no minor required)

ADDITIONAL COURSE REQUIREMENTS[A]			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 (General Studies-Communications)	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
Subtotal			35

**The multicultural graduation requirement can be satisfied by taking a multicultural course in one of these areas.*

[A]*all of the courses listed may be used to satisfy General College Requirements*

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
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
Subtotal			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	4
IND	4090	Advanced Modelmaking Fabrication Techniques	3
Total			120

LEISURE STUDIES PROGRAM

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 social service agencies.

In conjunction with the core course requirements, 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 concentration from which the student may select are therapeutic recreation services and leisure services management. Students must receive a "C" or better in human performance, sport and leisure courses.

Leisure Studies Major for Bachelor of Arts

CORE COURSES			SEMESTER HOURS
LES	1870	Introduction to Recreation and Leisure Services	3
LES	2110	Leadership Skills and Techniques in Leisure Services*	3
LES	2350	Leisure Services for Special Populations	3
LES	3870	Leisure Services Internship Seminar	2
LES	3930	Contemporary Issues in Leisure 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	3
LES	4890	Internship for Leisure Studies (Recreation)**	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 6 hours from the following:

COURSES			SEMESTER HOURS
HSL	1030	Skills and Methods of Teaching Physical Activities for Special Populations	2
HSL	1250	Adaptive Aquatic Programs	2
HSL	1340	Skills and Methods of Teaching Rhythms for Special Populations	2
HSL	1420	Activity and Fitness Programs for the Elderly	2
HSL	1430	Camping for Special Populations	2
HSL	1440	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
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 and Grant Writing in Human Performance, Sport and 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			41
Total required for the 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 in Leisure Services	3
MGT	3000	Organizational Management	3
MGT	3530	Human Resources Management	3
MKT	3000	Principles of Marketing	3
Subtotal			18

***Take LES 2150 and LES 3830 concurrently.*

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	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	3
LES	4810	Grants and Grant Writing in Human Performance, Sport and 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

COURSES			SEMESTER HOURS
LES	1870	Introduction to Recreation and Leisure Services*	3
LES	2110	Leadership Skills and Techniques in Leisure Services*	3
LES	2350	Leisure Services for Special Populations	3
LES	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
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 and Grant Writing in Human Performance, Sport and 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.

All students completing the mechanical engineering technology major and minor must participate in assessment during their last semester. This assessment is a series of examinations in mechanical engineering technology courses. See the Mechanical Engineering Technology Coordinator for details.

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
Subtotal			44

ADDITIONAL TECHNICAL COURSE REQUIREMENTS:			SEMESTER HOURS
EET	2000	Electric Circuits and Machines	3
EET	3010	Industrial Electronics	4
Subtotal			7

Additional Course Requirements:

CHE	1800	General Chemistry I*	4
COM	2610	Introduction to Technical Writing	3
ECO	2010	Principles of Economics—Macro*	3
ENG	1010	Freshman Composition: The Essay*	3
ENG	1020	Freshman Composition: Analysis, Research and Documentation*	3
MTH	1400	Precalculus Mathematics (MTH 1110, 1120 may be substituted)*	4
MTH	1410	Calculus I*	4
MTH	2410	Calculus II*	4
PHY	2311	General Physics I*	4
PHY	2331	General Physics II*	4
PHY	2321	General Physics I Laboratory*	1
PHY	2341	General Physics II Laboratory*	1
PHI	1030	Ethics*	3
SPE	1010	Public Speaking*	3
XXX	XXX	Level II General Studies – Historical*	3
XXX	XXX	Level II General Studies – Arts and Letters*	3
XXX	XXX	Level II General Studies*	3
Subtotal			53

**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

COURSES			SEMESTER HOURS
MET	3000	Manufacturing Analysis	4
MET	3100	N/C Computer Programming	3
MET	3250	Tool Design and Production Tooling	3
MET	3300	Statistical Process Control	3
MET	3330	Robotics for Manufacturing	3
MET	3XXX	Upper Division Elective	3
MET	4010	Advanced Manufacturing Technology**	3
MET	4080	Computer Aided Manufacturing	3
Subtotal			25
Total for Manufacturing			129

***Senior Experience course.*

Mechanical

COURSES			SEMESTER HOURS
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
Subtotal			24
Total for Mechanical			128

***Senior Experience course.*

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
Subtotal			23

Note: Some of the classes are required for the MET major.

Mechanical Engineering Technology Minor

REQUIRED COURSES			SEMESTER HOURS
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
Total			18

NURSING DEPARTMENT

The mission of the Nursing Department is to:

- provide non-nursing baccalaureate degree students, associate degree and diploma nurses with a high quality, accessible, enriched education
- provide the knowledge, skills and performance competencies to provide safe nursing practice and to improve nursing practice in a diverse global and technological community
- encourage students to think critically, be receptive to change and anticipate future health care needs of society

This mission is accomplished in part through health care partnerships in the community.

The Nursing Department offers two baccalaureate degree programs with a major in nursing, the Accelerated Nursing Program (ANP) and the Baccalaureate Registered Nurse Completion Program (BRNCP).

The Accelerated Nursing Program and the Baccalaureate Registered Nurse Completion Program are 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 the Department of Nursing at 303-556-5097 (ACNP) or 303-556-4391(BRNCP) or go to Administration Building, Suite 585.

Visit our Web site at http://www.mscd.edu/~nursing/.

ACCELERATED NURSING PROGRAM (ACNP)

The ACNP is a second degree program for students with a previous non-nursing baccalaureate degree. The program is offered in 6-week modules over a 13-month period.

The purposes of the ACNP are to:

- provide nursing students who have a prior non-nursing baccalaureate degree with a broad educational base to provide safe nursing care and advance the health of diverse communities through nursing
- prepare competent clinicians to meet the future health care needs of society
- influence the areas in which registered nurses practice
- promote open-mindedness and receptivity to change, growth and diversity
- encourage critical thinking, evidence-based practice, examination of controversy, research, intuitive knowledge and other ways of knowing
- provide preparation for taking the national licensing examination (NCLEX)
- provide preparation for graduate education in nursing
- stimulate continuous personal and professional growth and development

Students who wish to enter the ACNP must apply to the College and to the program. Information on applications is available through the Department of Nursing, in the Administration Building, Room 585, or on line at: http//:www.mscd.edu/~abs-nur/.

Students must earn a grade of "C" or better in all Department of Nursing courses in order to progress through the program. A course grade of less then "C" will result in removal from the program.

Educational Outcomes

The graduate will:

- value the essential worth and dignity of diverse individuals, families, groups and communities
- demonstrate integrity and an attitude of caring, flexibility, and self confidence
- act in an ethical, legal, safe and socially responsible manner
- demonstrate cultural sensitivity in the provision of care to individuals, families, groups and communities
- perform the professional role of the nurse applying the nursing process in a variety of health-related situations across the life span
- perform the professional role of the nurse as defined by the nurse practice act and national standards of practice
- apply the leadership roles of delegation, teacher, collaborator, resource person, advocate, change agent, and care manager/coordinator
- use research, evidence-based practice, and theories in developing creative solutions for the practice of nursing
- demonstrate sound judgment and discretion in applying nursing and management principles within diverse of healthcare environments with culturally diverse individuals, groups and communities
- use technology effectively for the betterment of the client
- use a variety of communication skills, technologies, and strategies effectively and appropriately to influence the health of clients

- demonstrate effective documentation of care
- demonstrate the ability to work collaboratively using communication skills of compromise, negotiation, and conflict resolution
- become politically and professionally active, as a nurse
- work collaboratively to enhance the power base of nursing
- recognize the incomplete and evolving nature of human knowledge and understand the need for lifelong learning
- think globally to identify social and health care trends to anticipate and build the future of nursing
- use critical thinking skills, inductive and deductive reasoning to identify underlying assumptions, to draw inferences, to evaluate arguments and to analyze information to examine, address and resolve problems

Admission Progression and Process Requirements

(additions or changes may be made without notice)

ADMISSION

- non-nursing baccalaureate degree from an accredited institution of higher learning
- acceptance at MSCD through the Office of Admissions
- MSCD transcript evaluation
- completion of approved pre-requisite courses:
  - Anatomy & Physiology I (with lab)
  - Anatomy & Physiology II (with lab)
  - Microbiology (with lab)
  - Multicultural course
  - minimum undergraduate GPA >2.5
- drug screening and criminal background check whose results meet or exceed standards established by the Alliance for Clinical Education (ACE) and clinical agency education partners

PROGRESSION

- current immunizations for health care providers according to CDC and Colorado Department of Health standards
- current negative TB screen maintained annually or as required by clinical agency education partners
- current two-year BLS for health care providers
- nursing student malpractice insurance policy with minimum $1 million per occurrence and $3 million aggregate
- completion of the Watson-Glaser Critical Thinking Appraisal
- comprehensive health insurance throughout the program
- signed statement on file acknowledging receipt and understanding of student handbook
- evidence of willingness to abide by all policies and procedures of MSCD and the Department of Nursing

- signed statement on file acknowledging understanding that employment during the program is strongly discouraged, that academic and clinical requirements must take priority and that employment cannot interfere with any portion of the program

PROCESS

- written application (available on-line)
- two page essay summarizing personal and professional goals related to accelerated nursing education and the nursing profession
- evidence of all MSCD and Department of Nursing admission requirements on file
- three professional employment or academic recommendations on the Department of Nursing form
- interview may be required

BACCALAUREATE REGISTERED NURSE COMPLETION PROGRAM (BRNCP)

The BRNCP is available to RNs with an associate's degree or diploma in nursing. The program is offered in class, online and in hybrid class formats.

The purposes of the upper-division Baccalaureate Registered Nurse Completion Program are to:

- advance the health of diverse communities through professional nursing practice
- influence health care in the areas in which registered nurses practice
- promote open-mindedness and receptivity to change, growth and diversity
- encourage critical thinking, evidence-based practice and examination of controversy, research, intuitive knowledge and other ways of knowing
- provide preparation for graduate education
- stimulate continuous personal and professional growth and development

Students who wish to enter the BRNCP must be accepted at MSCD through the Office of Admissions and must complete academic advising with a nursing faculty member prior to class registration. Students are responsible to remain informed of program changes and student status within the program. Current program materials are available in the Department of Nursing.

Nursing students must earn a grade of "C" or better in all Department of Nursing courses in order to progress through the program. Courses with grades of less than "C" must be repeated prior to taking additional courses for which the first course is prerequisite.

Educational Outcomes

The Baccalaureate Registered Nurse Completion Program has established the following exit behaviors for all graduates. The graduate will be able to:

- value the essential worth and dignity of diverse individuals, families, groups and communities
- 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
- apply critical thinking, evidence-based practice, research and theories in developing creative solutions to meet the changing practice of nursing and health care needs of society
- demonstrate sound judgment 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

- become professionally and politically active as a nurse
- work collaboratively through compromise, negotiation and conflict resolution to enhance the power base of nursing
- recognize the incomplete and the evolving nature of human knowledge and understanding and the need for life long learning
- think globally to identify social and health care trends to anticipate the future of nursing
- use deductive and inductive reasoning to identify underlying assumptions, draw inferences, evaluate arguments and analyze information on issues to examine and solve problems
- expand conceptions and ideas about the nursing profession in an ever changing health care environment

Admission Requirements

In order to qualify for admission to the BRNCP the applicant must:

- be a graduate of an approved associate's degree or diploma nursing program
- be accepted to the College
- be currently licensed or eligible to be licensed as a registered nurse (RN) in Colorado
- be Basic Cardiac Life Support (BLS) certified
- provide documentation of current immunizations according to CDC and Colorado Department of Health standards for health care providers
- provide documentation of negative TB screening - maintained annually or as required by clinical agency education partners
- carry individual / professional nurse's malpractice / liability insurance with a minimum $1,000,000 / $3,000,000
- complete the Watson-Glaser Critical Thinking Appraisal
- be advised by Department of Nursing faculty member
- provide copies of all college transcripts for file in the Department of Nursing
- provide copies of MSCD transcript evaluation to the Department of Nursing
- demonstrate basic 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 by one of the following:
  - graduate from a nursing school in the United States;
  - graduate from a non-U.S. nursing program recognized in that country as post secondary education as determined through the MSCD transfer office; or
  - 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.

Thirty (30) semester hours of lower division nursing credit will be awarded for lower division nursing courses for qualifying students.

The BRNCP offers one day a week day and evening classroom (currently on Tuesdays) online and hybrid class formats 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 Department of Nursing course. Students are encouraged to meet with an academic advisor prior to registration each semester and on an as-needed basis, which shall not be less than once each year.

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 BRNCP 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
Total			34

Required Support Courses

ANT	3480	Cultural Diversity in Health and Illness	3
NUR	3750	Clinical Pathophysiology for Nurses	3
MTH	1210 or another Approved Statistics Course		3-4
Total			9-10

Select three hours of elective credit from the following options:

HES	2000	Health Politics and Policy	3
HES	2150	Complementary and Alternative Medical Therapies	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
Total			3

Prerequisite
Lower division nursing credit (see Admission Requirements on page 273)

NUTRITION

Department of Health Professions

Eating Disorders Minor

A minor in Eating Disorders has been developed by the Health Professions Department. Contact their office for further details (303) 556-3130.

Nutrition Minor

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. A letter grade of at least "C" must be attained in each of the courses in the nutrition minor.

This nutrition minor will not meet registration requirements for qualification 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 R.D.

REQUIRED COURSES			SEMESTER HOURS
NUT	2040	Introduction to Nutrition	3
Science course*			3
Elective courses: Choose at least 12 credit hours from the courses below.			
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
NUT	3300	Cultural Aspects of Nutrition	3
NUT	3400	Nutrition and Weight Control	3
NUT/ HMT	3640	Healthy Cooking Techniques	3
Total for minor			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 (303-556-3130).

PARENT EDUCATION

Departments of Human Services and Psychology

Parent Education Minor

The parent education minor is for students entering professions involved with children and families. It provides the necessary knowledge and skills for working with parents. Also, the program addresses a need identified in the community for people with specific preparation for the role of parent educator. Many agencies offer or are interested in offering parent education programs, yet no specific preparation for that role has been available. This minor is designed to 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.

READING PROGRAM

Department of Teacher Education

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 283-299, 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
Total			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
Total			19

Note: A letter grade of at least a "C" must be attained in each of the courses in the reading minor.

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
Total			19

Reading Certificate for Post BA Elementary 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
Total			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
Total			17

Highly Recommended

RDG	3580	Reading in the Bilingual-Bicultural Classroom (competency in Spanish required)	3

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
Generalist Licensure Sequence

The special education major is a course of study that will prepare students to meet the educational needs of children and adolescents with mild to severe disabilities. The curriculum incorporates the Performance-Based Standards for Colorado Teachers (2000), the Colorado Model Content Standards (1997), the Licensure Standards for the Special Education Generalist, 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 (2000). All special education majors will take a General Studies program or a secondary concentration 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.

General Course Requirements

All special education majors must complete the General Course Requirements for students seeking licensure in elementary or secondary education. See page 288–295 of this *Catalog*. In most cases, the courses may be applied to MSCD's General Studies requirements.

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

COURSES			SEMESTER HOURS
RDG	3110	Foundations of Literacy Instruction in Grades P-6	3
SED	2200	Diversity, Disability and Education	3
SED	2700	Social/Emotional Development and Disorders	3
SED	3600	The Exceptional Learner in the Classroom	3
SED	3650	Curriculum, Collaboration and Transitions	3
SPE	1500	Introduction to Communication Disorders	3
SPE	2890	Language Acquisition	3
Subtotal			21

Sequence II Courses

COURSES			SEMESTER HOURS
SED	3700	Educational Exceptionality and Human Growth	3
SED	3750	Assessment, Methods, and Assistive Technology for Severe Disabilities	3
SED	3800	Differentiated Instruction for Students with Disabilities	3
SPE	3590	Classroom Intervention for Communication Disorders	3
Subtotal			12

Sequence III Courses

COURSES			SEMESTER HOURS
SED	4050	Evaluation and Planning: Moderate Needs	3
SED	4200	Language Development and Reading Disabilities	3
SED	4250	Effective Behavioral Support Systems	3
SED	4300	Assessment and Methods for Emotional/Behavior Disorders	3
Subtotal			12

Sequence IV Classes

COURSES			SEMESTER HOURS
SED	4420	Issues in Special Education	2
SED	4430	Assessment, Instruction and Collaboration Practicum: Elementary	3
SED	4440	Assessment, Instruction and Collaboration Practicum: Secondary	3
Subtotal			6

Sequence V Courses* – Student Teaching

Students must take 12 credits of student teaching in one of the following combinations:

COURSES			SEMESTER HOURS
• SED	4490	Special Education Student Teaching and Seminar: Elementary	6
EDU	4190	Student Teaching and Seminar: Elementary K-6	6
		-or-	
• SED	4490	Special Education Student Teaching and Seminar: Elementary	6
SED	4500	Special Education Student Teaching and Seminar: Secondary	6
		–or–	
• EDS	4290	Student Teaching and Seminar: Secondary 7-12	6
SED	4500	Special Education Student Teaching and Seminar: Secondary	6
		–or–	
• SED	4490	Special Education Student Teaching and Seminar: Elementary	12
		–or–	
• SED	4500	Special Education Student Teaching and Seminar: Secondary	12
Subtotal			12
Total			65

**Students who are not seeking licensure may substitute recommended electives for student teaching courses.*

Education Concentrations

Students who major in special education will choose an elementary education or secondary education concentration. The education concentration will allow the student to obtain content and experience in the regular education environment. The courses for these are as follows:

Elementary Education Concentration

COURSES			SEMESTER HOURS
EDT	3610	Applications of Educational Technology	2
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
PSY	1800	Developmental Educational Psychology	4
RDG	4000	Literacy Instruction in Grades K-6	3
Total			17

Secondary Education Concentration

COURSES			SEMESTER HOURS
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
Total			12

**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 Elementary Education Concentration

COURSES	SEMESTER HOURS
Special Education Core	65
Elementary Education Concentration	17
General Course Requirements	38
Total Program Hours	120

Special Education Major with Secondary Education Concentration

COURSES	SEMESTER HOURS
Special Education Core	65
Secondary Education Concentration	12
General Course Requirements	38
Electives	5
Total Program Hours	120

Special Education Post-Baccalaureate Program

The MSCD post-baccalaureate licensure program in special education provides students with a case-based curriculum designed to prepare students to meet the needs of children and adolescents with mild to severe disabilities. This professional education sequence for a special education generalist provides content that emphasizes developing effective decision-making in diverse contexts.

Students who are interested in the program are required to have a baccalaureate degree. Students who do not have a baccalaureate degree should pursue the special education undergraduate major. All students who enroll in the post-baccalaureate licensure program for special education generalist must take an educational psychology course (PSY 1800 or EDS 3200 or the equivalent) and a mathematics content course (MTH 1610 or the equivalent) as prerequisites. Students must see their special education advisors at least twice a year for information regarding program planning.

General Course Requirements

COURSES			SEMESTER HOURS
PSY	1800	Developmental Educational Psychology	4
		–or–	
EDS	3200	Educational Psychology Applied to Teaching	3
MTH	1610	Integrated Mathematics I	3
Subtotal			*11*

Sequence I Courses

COURSES			SEMESTER HOURS
RDG	3110	Foundations of Literacy Instruction in Grades P-6	3
SED	2200	Diversity, Disability and Education	3
SED	3600	The Exceptional Learner in the Classroom	3
SED	3650	Curriculum, Collaboration and Transitions	3
Subtotal			*12*

Sequence II Courses

COURSES			SEMESTER HOURS
SED	3700	Educational Exceptionality and Human Growth	3
SED	3750	Assessment, Methods, and Assistive Technology for Severe Disabilities	3
SED	3800	Differentiated Instruction for Students with Disabilities	3
Subtotal			*9*

Sequence III Courses

COURSES			SEMESTER HOURS
SED	4050	Evaluation and Planning: Moderate Needs	3
SED	4200	Language Development and Reading Disabilities	3
SED	4250	Effective Behavioral Support Systems	3
SED	4300	Assessment and Methods for Emotional/Behavioral Disorders	3
Subtotal			12

Sequence IV Courses

COURSES			SEMESTER HOURS
SED	4430	Assessment, lnstruction and Collaboration Practicum: Elementary	
–or–			
SED	4440	Assessment, Instruction and Collaboration Practicum: Secondary	3
Subtotal			3

Sequence V Courses

COURSES			SEMESTER HOURS
SED	4490	Special Education Student Teaching and Seminar: Elementary	
–or–			
SED	4500	Special Education Student Teaching and Seminar: Secondary	12
Subtotal			12
Total			*48*

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. Students should understand that this 18 hour course of study fulfills MSCD requirements for a minor, but it does not lead to licensure.

Special Education Concentration

COURSES			SEMESTER HOURS
SED	3600	The Exceptional Learner in the Classroom	3
plus a minimum of 15 hours from the following program:			
SED	2700	Social/Emotional Development and Disorders	3
SED	3650	Curriculum, Collaboration and Transitions	3
SED	3700	Educational Exceptionality and Human Growth	3
SED	3800	Differentiated Instruction for Students with Disabilities	3
SED	4000	Transitions and Collaborative Practices	3
SED	4050	Evaluation and Program Planning: Moderate Needs	3
SED	4250	Effective Behavioral Support Systems	3
Total			18

SURVEYING AND MAPPING PROGRAM

Department of 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).

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.

All students completing the surveying and mapping major and minor must participate in assessment during their last semester. This assessment is a series of examinations in the surveying and mapping courses. See the coordinator of the Surveying and Mapping Program for details.

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
SUR	3100	Survey Data Adjustment and Analysis I	3
SUR	3150	Astronomy for Surveyors	2
SUR	3300	Photogrammetry	3
SUR	3540	Boundary Law I	3
SUR	3700	Geodesy I	3
SUR	4320	Geodetic Survey Methods	4
SUR	4510	Map Projections and Coordinate Systems	3
Subtotal			49

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 I Laboratory	1
PHY	2331	General Physics II	4
PHY	2341	General Physics II Laboratory	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

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 requirement is met by a course taken from the mathematics minor.

Minor in Surveying*

REQUIRED TECHNICAL STUDIES			SEMESTER HOURS
SUR	1510	Surveying I**	4
SUR	2520	Surveying II**	4
SUR	2620	Survey Drafting–CAD**	3
SUR	2550	Surveying Computations	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 (art, music, physical education), secondary (7-12th grade) education, and special education, generalist (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. The College's teacher education programs have been approved by the Colorado Department of Education (CDE) and the Colorado Commission on Higher Education (CCHE), having met the 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 (art, music, physical education), 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 appropriate CCHE-approved 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.

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 licensure officer, 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 Mathematics Speech Communication
Modern Languages-Spanish Concentration Human Development Chicano/a Studies

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 or African American Studies

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 278 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 Application Center and the Student Teaching Center: (Formerly the Teacher Education Center)

THE STUDENT TEACHING CENTER

The Student Teaching Center (STC) is located in West Classroom 141. The key functions of the Student Teaching Center are:

1. Application to student teaching for all teacher education programs (STC).
2. Advising for all student teaching applicants (STC).
3. Placement of all student teaching assignments (STC).
4. Recommendation to the Colorado Department of Education For Licensure (STC).

THE TEACHER APPLICATION CENTER

The Teacher Application Center (TAC) located in West Classroom 136, manages all procedural steps and processes related to students moving through the teacher education program from provisional admittance, ensuring quality and equity. The key functions of the Teacher Education Center are:

1. Provisional formal admission to all teacher education programs (TAC).
2. Ongoing monitoring of student progress through the teacher education programs (TAC).
3. Initial advising through Information Meetings and Application Meetings (TAC).
4. Program Advising from onset up until Application for Student Teaching (TAC).

The other responsibilities of the Teacher Application 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

PROVISIONAL ADMISSION TO TEACHER EDUCATION PROGRAMS

Provisional admittance will be issued in the Teacher Application 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 take their transcripts to their education advisor for assistance. Students must certify that they left any previous education program in good standing and are eligible to return by providing a letter of verification.

FORMAL ADMISSION TO TEACHER EDUCATION PROGRAMS

Candidates must complete an *Application for Admission into a Teacher Education Program* and submit unofficial transcripts of all college work to the Teacher Application Center. Candidates must document eligibility by providing the following:

1. Providing evidence of the following Basic Skills:

Writing 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. The CLEP Exam for English, with a score of at least 50, may be substituted for ENG 1010 if the candidate has successfully completed ENG 1020 (grade of "C" or better).

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.

Mathematics Skills—To demonstrate that they have met the MSCD Basic Skills requirement in mathematics, candidates must have either successfully completed a college-level mathematics course at an accredited college or university **OR** passed an Advanced Placement Exam in mathematics **OR** they must have met the prerequisites for MTH 1610 by achieving **one of the following:**

- A score of 85 or higher on Accuplacer elementary algebra test ***OR***
- A score of 460 or higher on the SAT mathematics test ***OR***
- A score of 19 or higher on the ACT mathematics test

Oral Competency—All students (either post bac or undergraduate degree seeking) will be initially considered as having met the MSCD Basic Skills requirement in oral competency; however, teacher licensure candidates who do not demonstrate proficient oral communication skills as they progress in their teacher preparation course work will be identified and monitored through the disposition process. Degree seeking students must complete the General Education Speech requirement with a grade of "C" or better.

2. Other Evidence to be provided to gain formal admission:

- 2.50 GPA on the most recent 30 semester hours of college course work completed or 2.50 GPA overall
- 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 education 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 CCHE-approved (PLACE or PRAXIS) content exam as soon as is practical. Candidates should check with an advisor to determine the appropriate exam.

Post-Baccalaureate Residency 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.

TEACHER IN RESIDENCE PROGRAM, SEE PAGE 298 OF THE *CATALOG*.

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.

Prior to student teaching, 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.
- Submit verification that the program plan has been approved for student teaching by the student's education and content area advisor.
- Complete at least 9 credit hours in residence at MSCD prior to student teaching. Post bac students *see* "Post-Baccalaureate Residency Requirement for Student Teaching" on previous page.
- Document completion of their standards-based portfolio in Live Text for all courses and standards completed prior to the semester of application.
- Provide evidence of having **passed** the CCHE-approved (PLACE or PRAXIS) content exam. Candidates should check with an advisor to determine the appropriate exam.
- 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 an advisor 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 proficiency in all standards to obtain 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 Colorado Performance-based Standards for teacher licensure.
- Pass the CCHE-approved (PLACE or PRAXIS) content exam. Candidates should check with an advisor to determine the appropriate exam.

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 284. For further information, students should contact the Teacher Application Center (WC 136) 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.

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 For Non-Majors*	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	3
MTH	2620+	Integrated Mathematics II	3
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			36

**English majors must select another Level II Arts and Letters General Studies course and will take ENG 3461 for this requirement.*

+A third 3-credit mathmatics course, MTL 3600, will be required. Please contact the department for further information.

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
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 296)			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 Program prepares students to teach the multi-disciplinary 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 284. Information meetings for new and prospective students are held on a weekly basis by the Teacher Education Center. Call 303-556-3691 or go to www.mscd.edu/~ted 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.

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 For Non-Majors*	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	3
MTH	2620+	Integrated Mathematics II	3
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.*

+A third 3-credit mathmatics course, MTL 3600, will be required. Please contact the department for further information.

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.*

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

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	Modern Languages	Science
Mathematics	(French, Spanish, German)	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, and Documentation	3
MTH	1610	Integrated Mathematics I*	3
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

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

COURSES			SEMESTER HOURS
EDS	4290	Student Teaching and Seminar: Secondary 7–12*** (available summer term only with special arrangements)	6-12
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

**Secondary Education and K-12 licensure students taking EDT 3610 must register for 2 or 3 credit hours. Three credit hours should be elected by licensure students who wish to pursue advanced content area or grade-level technology skills.*
***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 Laboratory	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 II	4
PHY	2030	College Physics I Laboratory	1
PHY	2040	College Physics II Laboratory	1

-or-

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

Mathematics

Biology must take both:

MTH	1400	Precalculus Mathematics	3
MTH	1610	Integrated Mathematics I	3

Chemistry majors must take:

MTH	1410	Calculus I	4

Environmental science majors must take both:

MTH	1210	Introduction to Statistics	4
MTH	1400	Precalculus Mathematics	4

Science Teaching Methods

SCI	3950	Teaching Science in Middle and Secondary Schools	3

Total hours 45-49

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	African American Studies*

**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)

COURSES			SEMESTER HOURS
HIS	1010	Western Civilization to 1603	
-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, Chicano Studies, and African American Studies, must take 12 more hours of history selected in consultation with an advisor in their major.

Anthropology (3 hours)

COURSES			SEMESTER HOURS
ANT	1310	Introduction to Cultural Anthropology**	3

***African American Studies Majors will take The Black Community (AAS 3300) to cover the needed material*

Economics (6 hours)

ECO	2010	Principles of Economics–Macro	3
ECO	2020	Principles of Economics–Micro	
-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

SPECIAL EDUCATION, SEE PAGE 281 OF THIS *CATALOG*.

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 no 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.

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 to 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	3
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
Total			30-32

**Note: requirements are pending approval.*
***Required for students seeking minor without endorsement.*
****Required for bilingual minor with endorsement.*

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:

COURSES			SEMESTER HOURS
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

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
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 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.*

Teacher in Residence Program—An Alternative Route to Licensure

MSCD's Teacher Education Program offers an alternative pathway to elementary and secondary licensure through the unique and rigorous, Colorado Department of Education-approved, two-year Teacher in Residence (TiR) program. After being hired by a participating metro Denver school district, TiR candidates *must* enroll in the TiR program at MSCD. The program requires an intensive orientation before school starts, weekly classes for two semesters, four all-day Saturday sessions, submission of a portfolio/teacher work sample and extensive ongoing coaching and mentoring throughout the first two years of teaching.

TiR candidates earn 30 credit hours by participating in intensive coursework through weekly instruction designed to build the skills and knowledge necessary to effectively teach and successfully manage a classroom along with classroom mentoring and coaching by master teachers and MSCD TiR faculty. By the end of the second year, having completed all program requirements, the candidate will be recommended for a provisional teacher's license by the participating school district. College credit received for participation in TiR is not interchangeable with the existing traditional licensure program curriculum and credit. Candidates must successfully complete the entire first year to receive any college credit for the program and complete both years to be recommended for licensure.

To participate in the TiR program, all candidates must:

- Possess a baccalaureate degree from an accredited institution of higher education and the appropriate content area preparation as evaluated by the hiring district;
- Submit to a Colorado Bureau of Investigation background check;
- Have a teaching contract with one of the participating districts;
- Pass the appropriate Program for Licensing Assessments for Colorado Educators (PLACE) or PRAXIS II content test by April 15 of their first year in the program;
- Successfully complete the TiR program curriculum;
- Complete a teacher portfolio/teacher work sample that demonstrates proficiency in all 45 state performance-based standards/benchmarks.

The TiR program is operated out of the Metro South Extended Campus offices at 5660 Greenwood Plaza Blvd., suite 100. Call 303-721-1313 for more information about the program or visit the Web site, www.mscd.edu/~tir.

Year 1:

REQUIRED COURSES			SEMESTER HOURS
TIR	4491	Teacher in Residence: Educational Theory and Methods	10
TIR	4492	Teacher in Residence Program: Advanced Field Experiences	20
Total			*30*

Year 2:

By the conclusion of the second year, the district will recommend to the state that the resident teacher be granted a provisional license to teach if the Colorado Performance Based Standards have been satisfactorily demonstrated at the proficient level during that second year. Continual

demonstration of proficiency of the standards will be accomplished through each district's induction program, work with a building mentor, support from a coach, completion of a portfolio/ teacher work sample and successful evaluation from the building principal.

READING MINOR, SEE PAGE 277 OF THIS *CATALOG.*

SPECIAL EDUCATION MINOR, SEE PAGE 281 OF THE *CATALOG.*

TECHNICAL COMMUNICATIONS AND MEDIA PRODUCTION DEPARTMENT

Studies in the Technical Communications and Media Production Department blend the knowledge of communication practices and technology. Course work in technical communications develops essential skills for working professionals in the technical, scientific, medical, media production, or corporate communications fields.

Technical Communications and Media Production Department course work focuses on the development of reader-centered, content-driven information products produced in various areas of concentration including corporate communications, media and interactive media production, or technical writing and editing.

Bachelor of Science

The Technical Communications and Media Production Department offers a B.S. degree in Technical Communications with four concentrations and a technical communications minor, and three certificate programs. In addition, the department offers a digital media minor in conjunction with the Department of Art and the Department of Communication Arts and Sciences. The four concentrations are:

- corporate communications
- multimedia production
- technical media
- technical writing and editing

Each individual concentration teaches theory, concepts, and practical applications that can be employed in various areas of business, industry, government and the media production field. With the exception of the two extended major options, all students must complete a minor.

Upon completion of a degree program in technical communications, students should be able to:

- Communicate knowledge of the field both orally and in writing.
- Relate technical communications principles from their selected areas of concentration.
- Apply theory and principles in a practical manner to their areas of concentration.
- Conduct research, synthesize technical information and write in the appropriate format of their concentrations.
- Present technical information in a media or interactive media format suitable to their areas of concentration.
- Produce or oversee the production of technical information in a media or interactive media format suitable to their area of concentration.

Computer Skill Requirement

Computer skills are 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

–or–

- successful completion with a grade of "C" or better of an approved MSCD course in CMS or CSS 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.

Technical Communications Minor

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 concentrate on coursework in 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.

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

The digital media minor includes courses from the departments of Art, Communication Arts and Sciences, and Technical Communications and Media Production. 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.

Certificates

The Technical Communications and Media Production Department offers three certificate programs that enable students to enhance the professional training and experience an individual already possesses in order to expand employment opportunities and advancement. The three certificate programs are:

- corporate video production
- multimedia production
- technical writing and editing

Students enrolling in one of the major concentrations, one of the minors, or a certificate program must confer with a department advisor.

Technical Communications Major for Bachelor of Science

Technical Communications Core
All technical communications majors are required to complete the following courses.

REQUIRED CORE		SEMESTER HOURS
COM 2720	Introduction to Communication Concepts and Systems	3
COM 3780	Communications' Law	3
REQUIRED SENIOR EXPERIENCE		SEMESTER HOURS
COM 4410	Budgeting and Planning for Media Productions	3
–or–		
COM 4790	Senior Seminar in Technical Communications	3
Total		9

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 Core 9

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
Subtotal			15

Electives

Choose 18 credit hours from the following list:

COURSES			SEMESTER HOURS
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	3670	Writing for the Environmental Industry	3
COM	4760*	Advanced Internship in Technical Communications	1-12

** Internships require permission of instructor.*

Elective Courses Outside the Department

COURSES			SEMESTER HOURS
HMT	4730	Principles of Negotiation	3
MGT	3550	Manufacturing and Service Management	3
MGT	4610	Labor/Employee Relations	3
SOC	3160	Industry, Work and Occupations	3
Subtotal			18

Total for Corporate Communications Concentration 42

Multimedia Production Concentration

This communication concentration provides the student with the theory, production and programming practices of interactive Web, DVD and multimedia production. The course work includes the writing, editing, designing, authoring and programming of interactive multimedia projects in addition to professional experience and hands-on practice with computer hardware and software. Such productions are frequently used for education, training, marketing, public relations and sales purposes.

Technical Communications Core 9

REQUIRED CONCENTRATION COURSES			SEMESTER HOURS
COM	2450	Basic Multimedia Production	3
COM	3450	Intermediate Multimedia/Web Production	3
COM	3470	Writing for Interactive Media	3
COM	2480	Corporate Animation	3
CSS	1201	Understanding Programming	4

Choose one of the following:

COURSES			SEMESTER HOURS
CSS	1247	Introduction to Programming: Visual Basic	4
CSS	2267	The Java Programming Language	4
Subtotal			20

Electives

Choose 13-14 credit hours from the following list:

DEPARTMENTAL COURSES			SEMESTER HOURS
COM	2400	Basic Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video Production	3
COM	2430	Introduction to Technical Media	3
COM	2460	Presentation Graphics	3
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	3400	Intermediate Nonlinear Video Editing.	3
COM	3420	Intermediate Single Camera Video Production	3
COM	3440	Scriptwriting for Video	3
COM	3480	Interactive 3D Production	3
COM	3510	Corporate Communications	3
COM	3520	Communication of Power and Authority	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	3680	Internet Document Design for Technical Communicators	3
COM	3660	Variable Topics in Industrial and Technical Communications	3
COM	4420	Advanced Single Camera Video Production	3
COM	4450	Advanced Multimedia/DVD Production	3
COM	4760*	Advanced Internship in Technical Communications.	1-12

**Internships require permission of instructor.*

Elective Courses Outside the Department

CMS	2110**	Structured Problem Solving in Information Systems	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 and Networking	3
CSS	3607**	Advanced Web Programming: Java and Perl	4
Subtotal			13-14

Total for Multimedia Production Concentration 42

***These courses may have prerequisite requirements within the departments.*

Technical Media Concentration

This communications concentration provides the student with the theoretical and practical experience required to design, write, edit and produce multimedia and video productions for use in industry, government, corporate, cable narrowcasting and other organizations. Such productions are frequently used for training, image creation, promotional, motivational, narrowcasting and sales purposes.

Technical Communications Core 9

REQUIRED CONCENTRATION COURSES			SEMESTER HOURS
COM	2400	Basic Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video Production	3
COM	2430	Introduction to Technical Media	3
COM	3440	Scriptwriting for Video	3
Subtotal			12

Choose 12 credit hours from the following:

COURSES			SEMESTER HOURS
COM	2450	Basic Multimedia Production	3
COM	2460	Presentation Graphics	3
COM	2470	Basic DVD Authoring	3
COM	2480	Corporate Animation	3
COM	3400	Intermediate Nonlinear Video Editing.	3
COM	3420	Intermediate Single Camera Video Production	3

COM	3470	Writing for Interactive Media	3
COM	3480	Interactive 3D Production	3
COM	4401	Advanced Nonlinear Video Editing.	3
COM	4420	Advanced Single Camera Video Production	3
COM	4430	Directing and Lighting for Nonbroadcast Video	3
COM	4760*	Advanced Internship in Technical Communications.	3
Subtotal			12

Electives

Choose nine hours from courses not taken to fulfill hours in the concentration electives or choose from the following:

COURSES			SEMESTER HOURS
COM	2610	Introduction to Technical Writing	3
COM	3310	International Technical Communications	3
COM	3330	Technical Writing for Translation	3
COM	3450	Intermediate Multimedia/Web Production	3
COM	3510	Corporate Communications	3
COM	3520	Communication of Power and Authority	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	4450	Advanced Multimedia/DVD Production	3
COM	4760*	Advanced Internship in Technical Communications.	1-6

Elective Courses Outside the Department

COURSES			SEMESTER HOURS
SPE	3440**	Television Production	3
SPE	3460**	Audio Production.	3
SPE	4440**	Advanced Television Production.	3
IND	3530**	Digital Photography.	3
JRN	2600**	Introduction to Photojournalism	3
JRN	4890**	Social Documentary	3
Subtotal			9

Total for Multimedia Production Concentration 42

**Internships require permission of instructor.*

***These courses may have prerequisite requirements within the departments.*

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 course work in the writing, editing, design, and production of technical reports, proposals, and manuals in addition to professional experience and hands-on practices with computer hardware and software. The curriculum is designed to provide breadth of knowledge and multitask capability.

Technical Communications Core 9

REQUIRED CONCENTRATION COURSES			SEMESTER HOURS
COM	2610	Introduction to Technical Writing	3
COM	3310	International Technical Communications	3
COM	3620	Technical Editing	3
COM	3630	Designing Technical Publications	3
COM	3670	Writing for the Environmental Industry	3
Subtotal			15

Choose two of the following courses:

COM	2420	Basic Single Camera Video Production	3
COM	2430	Introduction to Technical Media	3
COM	2450	Basic Multimedia Production	3
COM	2460	Presentation Graphics	3

COM	2470	Basic DVD Authoring	3
COM	2480	Corporate Animation	3
Subtotal			6

Choose 12 credit hours from the following:

ELECTIVES			SEMESTER HOURS
COM	3330	Technical Writing for Translation	3
COM	3480	Interactive 3D Production	3
COM	3510	Corporate Communications	3
COM	3520	Communication of Power and Authority	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	4760*	Advanced Internship in Technical Communications	1-12

**Internships require permission of instructor.*

Elective Courses Outside the Department

JRN	1010	Introduction to Journalism and Mass Media	3
JRN	1200**	Beginning Editing	3
ENG	2010**	The Nature of Language	3
Subtotal			12

Total for Technical Writing and Editing Concentration 42

***These courses may have prerequisite requirements within the departments.*

Extended Major Option I

An extended major within the department is possible when a student's career goals require technological 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, the student takes technology-related course work that would allow the student to integrate current technology into the area of study. The student must take a minimum of nine credit hours of upper-division course work.

Choose 24 hours from the following:

COURSES			SEMESTER HOURS
CMS	2110*	Structured Problem Solving in Information Systems	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 and Networking	3
CMS	4030*	Web Site Administration	3
COM	3470	Writing for Interactive Media	3
COM	3480	Interactive 3D Production	3
COM	3640	Writing Computer-User Software Documentation	3
COM	3650	Writing Hardware Documentation	3
COM	3680	Internet Document Design for Technical Communicators	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

Concentration Subtotal 42
Extended Major Subtotal 24
Total 66

**These courses may have prerequisite requirements within the departments.*

Extended Major Option II

A student completing a community college degree may enroll for an extended major within the department if the student fulfills all of the following conditions:

- the curriculum for the associates degree to be used is accepted by the department, and
- a 2+2 agreement is in place between the community college granting the degree and the Technical Communications and Media Production 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 all General Studies and multicultural requirements of the College. 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 and Media Production Department to provide an overview of the discipline.

REQUIRED COURSES**			SEMESTER HOURS
COM	2430	Introduction to Technical Media	3
COM	2610	Introduction to Technical Writing	3
COM	2720	Introduction to Communication Concepts and Systems	3
Subtotal			9
Choose five of the following courses:			
COM	2400	Basic Nonlinear Video Editing	3
COM	2420	Basic Single Camera Video 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	3400	Intermediate Nonlinear Video Editing.	3
COM	3420	Intermediate Single Camera Video Production	3
COM	3440	Scriptwriting for Video	3
COM	3450	Intermediate Multimedia/Web Production	3
COM	3470	Writing for Interactive Media	3
COM	3480	Interactive 3D Production	3
COM	3510	Corporate Communications	3
COM	3520	Communication of Power and Authority	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	3780	Communications' Law.	3
COM	4401	Advanced Nonlinear Video Editing.	3
COM	4410	Budgeting and Planning for Media Productions	3
COM	4420	Advanced Single Camera Video Production	3
COM	4430	Directing and Lighting for Non-Broadcast Video	3
COM	4450	Advanced Multimedia/DVD Production	3
COM	4760*	Advanced Internship in Technical Communications.	1-6
Subtotal			15
Total			24

**Internships require permission of instructor.*

***Most courses have prerequisites. Please consult the course descriptions in the back of this Catalog.*

DIGITAL MEDIA MINOR, SEE PAGES 137, 234 OF THIS *CATALOG*.

Certificate Programs

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

Multimedia Production

COM 2400 Basic Nonlinear Video Editing . . . 3
COM 2450 Basic Multimedia Production . . . 3
COM 2480 Corporate Animation . . . 3
COM 3450 Intermediate Multimedia/Web Production . . . 3
COM 3470 Writing for Interactive Media . . . 3

For more information, call Ms. Lisa Ortiz, 303-352-4387

Corporate Video Production

COM 2400 Basic Nonlinear Video Editing . . . 3
COM 2420 Basic Single Camera Video Production . . . 3
COM 2430 Introduction to Technical Media . . . 3
COM 3400 Intermediate Nonlinear Video Editing. . . . 3
COM 3420 Intermediate Single Camera Video Production . . . 3
COM 3440 Scriptwriting for Video . . . 3

For more information, 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 3670 Writing for the Environmental Industry . . . 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

For more information, call Ms. Kathryn O'Donnell, 303-556-4756.

TYPES OF COURSES AND COURSE DESCRIPTIONS

Types of Courses

MSCD offers several types of courses: traditional, correspondence, hybrid, online, adaptive self-paced, telecourse, and omnibus (includes field experience/internship/practicum and cooperative education).

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 courses 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 Sophmore-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 course work. 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.

Correspondence Courses

With no class meetings, correspondence classes allow students to set an independent learning pace at home. Students submit class work directly to instructors via mail and, in most cases, have one year to complete the class. However, a student is technically registered **only** during the original semester and is not considered a continuing student. Once class work is completed and graded, the grade will appear on the transcript for the original semester enrolled.

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 Service Learning Center office at 303-556-3290.

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 as shown in the following example:

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.

The first three to four letters, called the course subject code, represent the area of study or discipline, *e.g.*, CHE represents chemistry. The course number follows the course subject code, e.g., 2100. 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 2100-5 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 2100-5 Introduction to Organic and Biological Chemistry (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 2100-5 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 described in the *Class Schedule* located on MSCD's Web site (http://www.mscd.edu).

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 **Women of Color (3 + 0) (CHS 2100, ICS 2100, NAS 2100, WMS 2100)**
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; sexual

ity 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 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: 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. Credit will be granted for only one prefix: AAS or HIS.

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,
This course is 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: 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)**
This course 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 in this course. 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 **Psychology of Group Prejudice (3 + 0) (CHS 3700/PSY 3700/WMS 3700)**
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 preassess-

ment 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: MTH 1110 or 1310 or 1400
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: MTH 1110 or 1310 or 1400; 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: MTH 1110 or 1310 or 1400; ACC 2010 and junior standing
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 Accounting Information Systems (3 + 0)
Prerequisites: MTH 1110 or 1310 or 1400; ACC 2020 and CMS 2010
The course is a study of principles and current issues relating to the design, implementation, control and regulation of accounting information systems. Tools and technologies related to accounting systems and the place of accounting systems within the modern enterprise provide a focus for the course, which includes an introduction to accounting related information technology (IT) audit issues.

ACC 3400-3 Cost Accounting (3 + 0)
Prerequisites: MTH 1110 or 1310 or 1400; ACC 2020, and CMS 2010.
This course includes coverage of cost behavior relationships, job order and process costing systems, overhead allocation methods, budgeting and budget variance analysis, cost-volume-profit relationships and cost prediction for supporting management decision-making in service, sales and manufacturing organizations. Computer applications are an integral part of this course.

ACC 3410-3 Advanced Cost Accounting (3 + 0)
Prerequisites: ACC 3400, CMS 2300
This course applies cost accounting concepts and procedures to particular business decisions. Topics covered include cost allocation, short run decisions, capital budgeting techniques, inventory management organization performance evaluations transfer pricing and other current topics which support management decision-making.

ACC 3510-3 **Intermediate Accounting I (3 + 0)**
Prerequisite: MTH 1110 or 1310 or 1400; 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 and Attestation (3 + 0)**
Prerequisites: ACC 3510
Corequisite: ACC 3520
This course is an introduction to contemporary theory and practice of auditing and attestation, The course will acquaint the students with auditing and attestation standards, professional ethic, internal control, objectives and procedures for audits and attestation, risk assessment, audit and attestation reports, legal liability, research methodology, and corporate governance. Concepts included are professionalism, independence, evidence, risk, control, and enhancement of reliability and relevance properties of attester's services.

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. Complexities inherent in consolidating investments in foreign subsidiaries are addressed in depth. Additional topics include: variable interest entities; accounting for foreign currency transactions, hedging transactions, and equity method investments; reporting disaggregated information; and interim reporting requirements.

ACC 4650-3 **Fraud: Issues in Accounting and Auditing (3 + 0)**
Prerequisite: ACC 3510
The purpose of this course is to examine various aspects of fraud. Students will address ethical issues related to accounting and auditing. The course will provide an overview of the nature of fraud and its effects on business organizations. Methods to prevent, detect, and investigate fraud will be explored in detail. Students will develop skills in detecting and preventing asset misappropriation and other fraudulent activities. The importance of internal control and accounting information systems, as well as role of the auditing process in the prevention and detection of fraud.

AVIATION AND 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
The course is designed to enable a student to obtain credit for earning an FAA Private Pilot certificate under either Federal Aviation Regulations Part 61 or Part 141. 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 navaids. 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 navaids due to equipment and propagation anomalies. Emphasis is on safety and precautions; the goals is systems-smart, competent pilots.

AES 2200-4 Fundamentals of Air Traffic Control (2 + 4)
Prerequisite: AES 1100 or instructor permission
This course is an introduction to air traffic services, procedures, communications, record-keeping, regulations, emergencies, and air space constructions. Basic and advanced ATC (air traffic control) radar topics are introduced with emphasis on hands-on application in the simulator lab. Lab exercises encompass 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 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 students 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 1100 and permission of instructor
This course is designed to enable a student to obtain credit for earning an FAA Instrument rating under either Federal Aviation Regulations Part 61 or Part 141. A minimum of 40 hours of instrument flight time is required. Course credit is contingent on the student obtaining the FAA Instrument rating.

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 and junior or senior standing
This course provides an overview of fundamental aviation law. Concepts and terminology of administrative law, contract law, and tort law as they relate to governmental actions, aircraft accidents, aircraft transactions and insurance, airports and airspace, and labor and employment are introduced. An introduction to space law 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)
Prerequisites: FAA Private Pilot certificate and permission of instructor
The course is designed to enable a student to obtain credit for earning the FAA Commercial Pilot certificate under either Federal Aviation Regulations Part 61 or Part 141. Course credit is contingent on the student obtaining the FAA Commercial Pilot certificate.

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
Human factors, physiological effects and problems associated with flight are studied in this course. This includes both high and low altitude flight environments.

AES 3870-3 Aircraft Accident Investigation (3 + 0)
Prerequisites: junior or senior standing or permission of instructor
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 3880-3 Aviation Security (3 + 0)
Prerequisite: junior or senior standing
The history, development and strategies of prevention and response to aviation security issues are studied in this course. This includes airport, air carrier, cargo, general aviation and in-flight security challenges, security assessments and anti-terrorism strategies. The history of air terrorism is addressed, focusing on terrorist tactics and governmental response before and after 9/11/2001.

AES 4040-3 Aircraft Performance (3 + 0)
Prerequisites: AES 1100, and junior or senior standing
Performance of jet- and propeller-powered aircraft is examined. 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 4120-4 Air Carrier Systems (4 + 0)
Prerequisites: junior or senior standing, AES 3000, AES 3530, AES 4040, and the FAA Commercial Pilot certificate with Instrument rating
Corequisite: AES 4130
This course gives the air carrier first officer candidate an operational knowledge of air carrier aircraft systems. This includes powerplant, fuel, electrical, hydraulic, pneumatic, air conditioning, pressurization, avionics, flight controls, fire protection, and ice and rain protection systems.

AES 4130-4 Flight Officer Duties and Responsibilities (4 + 0)
Prerequisites: junior or senior standing, AES 3000, 3530, 4040, and the FAA Commercial certificate with Instrument rating
Corequisite: AES 4120
This course gives flight officer candidates an operational knowledge of air carrier aircraft 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 flight officer duties and responsibilities as set forth in FAR Part 121.

AES 4150-2 Transport Category Aircraft Systems (1 + 2)
Prerequisite: senior standing, AES 4120 or AES 4140 and AES 4130
The course requires students to apply the theory learned in AES 4120 and AES 4130. 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 aviation and 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: AES 1100 and junior or senior standing
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 FMS, EFIS, INS and GPS. Finally, electronic instrumentation, navigation and flight management systems are discussed.

AES 4500-1 Flight Multi-Engine (0 + 2)
Prerequisite: FAA Commercial Pilot certificate and permission of instructor
This course covers multiengine aircraft operations. A minimum of 10 hours of flight training time are required. The FAA multiengine rating must be obtained to receive credit for this course.

AES 4510-1 Flight Instructor (0 + 2)
Prerequisites: FAA Commercial/Instrument Pilot certificate and permission of instructor
This course provides the basic aeronautical knowledge and flight experience necessary for the FAA Certified Flight Instructor certificate. Fifteen hours of flight training are required and the FAA Certified Flight Instructor certificate must be obtained to receive credit for this course.

AES 4520-1 Flight Instructor-Instrument (0 + 2)
Prerequisites: FAA Certified Flight Instructor certificate and permission of instructor
This course provides the basic aeronautical knowledge and experience that the instrument flight instructor must have. Ten hours of flight training are required and the FAA Instrument Instructor rating must be obtained to receive credit for this course.

AES 4530-1 Flight Instructor-Multi-Engine (0 + 2)
Prerequisites: CFI, multiengine rating and permission of instructor
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 flight training time is required. The FAA Multiengine Flight Instructor rating must be obtained to receive credit for this course.

AES 4550-1 Flight Helicopter (0 + 2)
Prerequisites: permission of instructor
Helicopter systems, aerodynamics, flight characteristics, helicopter operations, and pertinent regulations and procedures are studied in this course. The FAA Commercial Pilot certificate with the Rotorcraft-helicopter rating must be obtained to receive credit for this course.

AES 4570-1 Airline Transport Pilot (0 + 2)
Prerequisites: FAA Commercial/Instrument certificate and permission of instructor
Fifteen hundred hours of flight time, including 500 cross-country, 100 hours night flying, and 75 hours of instrument flight are required to complete this course. Students should be close to having completed the required flight hours before enrolling in this course. The course involves knowledge of navigation, weather, FARs, radio communications, weight distribution on aircraft and loading. Course credit is contingent on the student obtaining the FAA Airline Transport Pilot certificate.

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: junior or senior standing or permission of instructor
This course is an introduction to astronautics. Topics include the fundamental laws of astrophysics, basic launch and re-entry operations, the space environment, propulsion systems, and launch vehicles. Opportunity is provided for individual student-led investigations related to topics such as space exploration, space commercialization, space defense, space stations, space planes, remote sensing, mission analysis and design, and space policy/law.

AES 4710-3 Turboprop Flight Simulation (1 + 4)
Prerequisite: FAA Private Pilot certificate, instrument rating or AES 2710, multiengine rating or AES 3710 recommended
This course introduces twin-engine turboprop aircraft operations. Skill is developed in complex weight and balance computations 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
This course is an overview of aviation safety from the standpoint of the professional pilot. This includes the study of governmental regulatory framework and agencies responsible for safety and accident investigation, methods of analyzing and interpreting safety data, accident causation models, human factors in aviation safety, and a review of safety issues in air traffic control, aircraft design and certification, airline organization and operations, and airport design and operation. An overview of aviation security issues is included.

AES 4870-3 Aviation Safety Program Management (3 + 0)
Prerequisites: completion of all required AES 3000-level courses and senior standing
This course addresses requirements to develop comprehensive safety programs for aviation organizations at aviation facilities. Included are the philosophy of operations and support of air transportation; the dynamics of interpersonal relationships; Quality Assurance (QA) and Quality Control (QC); effective communications techniques; correct procedures for handling FAA, NTSB, and OSHA investigations and reports, and effective proactive management to obtain federal legislation in support of accident prevention, safety, and health programs. Federal Emergency Management Agency (FEMA) emergency planning and Disaster Recovery planning are covered. Emphasis is placed on the management of aviation safety programs.

AES 4910-3 Aviation Management 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.

AES 4930-3 Professional Flight Standards Seminar (3 + 0)
Prerequisites: completion of, or concurrent enrollment in, all other Aviation and Aerospace Science core courses and senior standing
This course is a senior-level capstone course for aviation technology majors. It is an academic survey of Crew Resource Management, Organizational Communication, Aviation Psychology, Strategies, Principles and Contemporary Issues in Aviation with a practical emphasis on Advanced Cockpit "Glass" Automation, LOS/LOFT Development, Evaluation and Facilitation. (Senior Experience)

AES 4950-3 Aviation and Aerospace Science Management Strategies (3 + 0)
Prerequisites: completion of, or concurrent enrollment in, all other Aviation and Aerospace Science core courses and senior standing
This capstone course presents a progression of aviation and aerospace management case-based studies designed to emphasize the application of team building, communication, and critical thinking skills in the work environment. Students are required to synthesize and apply their knowledge and skills to each case. The skills and knowledge acquired by students throughout their education in the Aviation and Aerospace Science Department are evaluated in this course. (Senior Experience)

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 miliary profession/officership, the miliary 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 3000-3 Art Nouveau (3 + 0)
Prerequisite: ART 2001 and ART 2002 or permission of instructor.
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 3021-3 Arts of Asia (3 + 0)
Prerequisite: ART 2001 or permission of instructor
This course is a survey of the art of India, China, and Japan. It will include a study of the cultural, historical, and religious factors that have influenced the development of visual cultures in these three particular civilizations. A key theme is the interaction among cultural traditions not only within India, China and Japan but also through international processes of trade, colonialism, and nationalism. Special attention will be placed on works found in the Denver Art Museum.

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 2001 and ART 2002 or permission of instructor
This course is an in-depth study of art, architecture, and design in the transitional period between World War I and World War II. We consider art in France, Germany, the Soviet Union and the United States in its cultural context. Students will read theoretical material and artists' writings as well as examine political and historical events and analyze how those informed and were represented by artistic practices. A recurring theme throughout the course will be art's social and critical functions.

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 2002 or permission of instructor
This course examines photographs and critical issues surrounding photography in the 19th and 20th centuries. The relationship of photography to the other arts, as well as to literary, political, social and philosophical issues, will be key to this discussion. The course will briefly survey photography's varied histories, and then select particular moments and issues for deeper critical examination.

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, Web sites 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 3170-3 Intermediate Life Drawing (0 + 6)
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 **Art Theory and Criticism (3 + 0)**
Prerequisites: ART 2001 and ART 2002 and ART 3011; or permission of instructor
This is a seminar for advanced students involving the reading and discussion of Modern and Postmodern critical and theoretical essays about the visual arts. Students will be required to make extensive use of the library facilities and to demonstrate their ability to analyze texts both orally and in writing. By the end of the course, students will be able to apply theoretical principles to their own and to historical artworks.

ART 4020-3 **Art History and Its Methods (3 + 0)**
Prerequisites: ART 2001 and ART 2002 and an additional course (3hrs) in art history, theory and criticism; or permission of instructor.
This seminar will allow students to analyze the changing methodology of the discipline of art history over time and to develop a project that will investigate a specific problem found in previous and current scholarship dealing with issues of style, meaning or interpretation. Students will present the results of the project in the seminar setting, and will also submit a written version of those findings with appropriate documentation.

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, eight-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 precious 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 precious 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 precious 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.

ART 4758-3 Senior Thesis in Art History (3 + 0)
Prerequisite: Art core, ART 3011, additional 12 hrs of art history, theory and criticism courses, Level I and Level II General Studies, and senior standing; or permission of instructor
This course is designed for the art history, theory, and criticism student who will build upon knowledge of scholarship, methodology and theory gained in previous coursework. The student will develop an original thesis in the investigation of a specific problem in the field of art history, dealing with issues of style, meaning, and interpretation, critical theory, or the exhibition of the art object. The student will present the results of that research in a formal manner to students and faculty in a colloquium setting. Also, the student will submit a written version of those findings with appropriate documentation. (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 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)

AST 3050-3 General Astronomy II (3 + 0)
Prerequisites: AST 1052 or PHY 2010 or PHY 2311
This course is a continuation of AST 1052. The topics covered in this course include stellar evolution, galaxies, and cosmology.

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
The 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 students 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 for Secondary Education (3 + 4)**
Prerequisites: BIO 1080/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 only for students who are biology majors seeking licensure in secondary science education. This course will not count for biology credit for any other biology majors and will not substitute for BIO 2310 and BIO 2320.

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 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 informa-tion, 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)

CAREER AND PERSONAL DEVELOPMENT

CPD 2300-1 Time Management (1 + 0)
Learning to manage time efficiently is a necessary skill for successful students, educators, and professionals. This course is designed to enable women and men to analyze their use of time, identify factors that contribute to wasting time, and improve use of time through better prioritizing, scheduling, and increased motivation.

CPD 2310-1 **Stress Management (1 + 0)**
In every individual's life there are numerous sources of stress. Instead of simply treating the symptoms of stress, this course will help students identify their own causes of stress and then deal with those causes prescriptively. Discussions will focus on understanding stress theory, personality attributes that contribute to stress, stress in the work environment, and relationship stress.

CPD 2320-1 **Self Esteem (1 + 0)**
This course will explore the issues of self-esteem within a feminist framework, including the effects of sexism on self-worth, the role of women in a sexist society, and the tools needed to survive with a strong self image. The goal is to apply what is learned to enhancing everyday living through an understanding of societal, familial, and self-induced pressures.

CPD 2330-1 **Assertiveness (1 + 0)**
This course explores assertive behavior from a feminist point of view. The differences between passive, assertive, and aggressive behaviors are discussed. Avenues for change and tools to achieve change are identified.

CPD 2340-1 **Sexual Harrassment/Discrimination (1 + 0)**
This interactive workshop will help students to become aware of sexual harassment and learn how to stop and prevent it.

CPD 2350-1 **Career Evaluation Workshop (1 + 0)**
This course will focus on career evaluation and will assist students in acquiring the skills and attitudes to plan effectively for and manage the changes which they will experience during their work lives.

CPD 2360-1 **Multilevel Wellness (1 + 0)**
This course will empower students with tools to attain their own personal sense of well-being. It will address wellness as a multi-level process consisting of emotional, cognitive, somatic and spiritual components. The workshop will include information, experiential exercises, and process work. Group work and journal keeping will also be used to bridge the communication gap between the self and others.

CIVIL ENGINEERING TECHNOLOGY

CET 1100-3 **Introduction to Civil Engineering Technology (3 + 0)**
Pre or Corequisite: MTH 1410 with a grade of "C" or better
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 Fluid Mechanics II (3 + 0)**
Prerequisite: CET 3180 with a grade of "C" or better
This course is a continuation of the fundamentals introduced in CET 3180, *Fluid Mechanics I*, with emphasis on the analysis of forces on immersed bodies, steady flow in open channels, fluid measurements, and the problems associated with unsteady fluid flow.

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 **Soil Mechanics (2 + 2)**
Prerequisites: CET 3130 and CET 3180 with grades of "C" or better, and senior standing
In this course, students are introduced to the physical and mechanical properties of soils and effects of soil conditions on the design and construction process. They design and evaluate solutions related to the foundation design of an engineering structure. Students will perform standard laboratory soil tests analyzing variations in behavior of soils under different loading conditions. (Senior Experience)

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 and Guaranteed Transfer—SC1)

CHE 1150-1 Principles of Chemistry Laboratory (0 + 2)
Perquisites: 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 and Guaranteed Transfer—SC1)

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 3000, CHE 3010, CHE 3110, CHE 3130
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 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 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 4700-5 **Criminalistics Internship I (0 + 15)**
Prerequisite: CHE 3710
Laboratory internship experience for criminalistics majors.

CHE 4710-6 **Criminalistics Internship II (0 + 18)**
Prerequisite: CHE 3710
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
This course 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
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.

CHS 2100-3 **Women of Color (3 + 0) (AAS 2100, ICS 2100, NAS 2100, WMS 2100)**
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
This course 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
This course 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
This course traces the social, political, cultural, and economic effects of the 1910 Revolution on 20th century Mexico. It also describes how the United States government and private citizens have influenced 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
This course traces the social, political, and economic forces that contributed to the Mexican Revolution (1910-1920). Furthermore, it provides a critical analysis of how leaders, women,

the Mexican masses, and the 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
This 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
This course is 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
This course 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
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: CHS or ENG. Suitable for non-English majors.

CHS 3410-3
(ENG 3490) **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: CHS or ENG. Suitable for non-English majors.

CHS 3460-3
(WMS 346D) **La Chicana (3 + 0)**
Prerequisite: CHS 1000 or permission of instructor
This course provides an in-depth analysis of the history and roles of Mexican-American women. It 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 **Psychology of Group Prejudice (3 + 0) (AAS 3700/PSY 3700/WMS 3700)**
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
Carlos Castaneda has become a major literary figure and the scope of his production deserves a serious and detailed analysis.

CHS 4200-3
(ENG 4130) **Seminar: Carlos Castaneda (3 + 0)**
Prerequisite: junior or senior standing or permission of instructor
This course is 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)**
This 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: Variable Topics (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 equity and fairness, "whistle blowing" and other issues. (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.

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 **Structured Problem Solving in Information Systems (3 + 0)**
Prerequisite: CMS 2010
This is a problem solving course in which the tools of structured design are used to design computerized solu-tions 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
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 2110
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 (3 + 0)
Prerequisite: CMS 2110
This course covers the major elements of the C programming language. Structured design tools and techniques are used to develop problem solutions that are implemented in the C programming language.

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
This course provides a visual development environment to develop object-oriented, event-driven GUI business applications. Visual Basic is a graphical user interface RAD tool for development of Web and Windows applications. Students will complete an application project that requires the analysis of a problem, development of an appropriate program design, creation of a MSIL solution and a plan for implementation with appropriate documentation.

CMS 3180-3 Problem Solving: An Object Oriented Programming Approach (3 + 0)
Prerequisite: CMS 2110
This is a problem solving course in which object oriented methods are used to design computerized solutions to information systems problems. An Object Oriented Programming (OOP) language such as C++is used to implement these designs. Emphasis is placed on applying the techniques of Abstractions and Decomposition, the root of OOP methods. The primary OOP characteristics of encapsulation, inheritance, and polymorphism will be emphasized in the implementation of these designs. Object Oriented Analysis and Design methodologies such as UML will be introduced.

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 and Networking (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 Information Systems Development with GUI Development Tools (3 + 0)
Prerequisite: CMS 2110
This course introduces the student to RAD tools for contemporary systems development within a GUI development environment. It includes the structure and processes of a high level programming language and familiarizes the student with current development environments for Web and Windows applications (including their capabilities and limitations).

CMS 3270-3 Advanced Computer Applications for Business (3 + 0)
Prerequisite: CMS 2010
This is a software solutions microcomputer course that teaches problem solving at the business operational level using advanced applications of word processing, presentation graphics, electronic spreadsheets, and database management. Hands-on practice with the advanced *Microsoft* application suite and computer-based examinations are 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 Operating Systems for End Users (3 + 0)
Prerequisites: CMS 2010 and CMS 2110
An end-user oriented microcomputer operating systems course which teaches advanced concepts of the most popular operating systems, both networked and stand-alone. The course includes instruction in theory, plus hands-on experience with each operating system.

CMS 3300-3 Principles of Quantitative Management Solutions (3 + 0)
Prerequisite: MTH 1310, MTH 1320, Junior level standing
This is a course in the application of statistical inference and translation of quantitative data into information which can be used in business decision making. This course will cover the topics of index numbers, learning curves, confidence intervals, tests of hypothesis, quality control, and regression and correlation analysis, etc., in the context of production and operations management skills needed by American industry.

CMS 3320-3 Quatitative Decision-Making (3 + 0)
Prerequisite CMS 3300
Designed to develop the student's ability to use basic theory and management science techniques. Includes construction of payoff tables, Baysian Statistics, inventory, and production control, and linear programming methods.

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 3500-3 Information Systems Security (3 + 0)
Prerequisite: CMS 3230
This course covers a broad range of topics in security for networked and internetworked computer systems. It examines security and integrity objectives in terms of high level policy and presents security services used to address those requirements. Network security architectures are analyzed to insure that critical security functions are protected from unauthorized access and modification. Access control in networked systems is examined.

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 2110, CMS 3060 and a course from the CMS Programming Language Group
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 4160-3 Advanced Programming Seminar (3 + 0)
Prerequisites: CMS 2110, CMS 3060, and a course from the CMS Programming Language Group
This course addresses advanced language techniques and their application to Information Systems problems. It discusses the appropriateness of certain languages and programming techniques.

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 4281-3 Network Installation and Administration with UNIX/Linux (3 + 0)
Prerequisite: CMS 3280
This course presents information and skills necessary to begin to perform competently in the role of a network/systems administrator in a Linux/UNIX environment, including installation, configuration, and management fo the operating system.

CMS 4410-3 Management Information Systems (3 + 0)
Prerequisites: CMS 2110 and MGT 3000
This course provides an overview of management information systems, managerial decision making practices and styles, and requisite information needs. International information concepts, the influence of national cultures on decision making, information use, and on various system design approaches are examined. The course addresses the practical aspects of the development of management information systems and decision support systems.

TECHNICAL COMMUNICATIONS AND MEDIA PRODUCTION

COM 2400-3 Basic Nonlinear Video Editing (2 + 2)
This course introduces the fundamental principles, aesthetics, and procedures necessary to perform nonlinear videotape editing. Students will learn how to perform video edits, the importance of aesthetics in editing, and how to translate editing theory to practical applications.

COM 2420-3 Basic Single Camera Video Production (3 + 0)
Pre- or Corequisite: COM 2400 or permission of instructor
This course will introduce students to the basics of audio and video techniques and standards for producing on-location, single-camera programs. Students will undertake a series of exercises that teach production methods and they will edit a final paper.

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 (3 + 0)
Prerequisite: CMS 1010 or CSS 1010 or permission of instructor.
This course introduces the basic techniques of designing and producing an interactive multimedia project. Topics include: working with text, graphics, animation, video, audio and interactivity. The emphasis is on the design and communication of information in an interactive media environment. The student will produce a multimedia project.

COM 2460-3 Presentation Graphics (3 + 0)
The student will design and produce computer graphic images that are used in informational presentations, multimedia, Web, 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 (3 + 0)
This course introduces students to the planning and production of 2-D animations for 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 3400-3 Intermediate Nonlinear Video Editing (3 + 0)
Prerequisite: COM 2420 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 Single Camera Video Production (3 + 0)
Prerequisite: COM 2400, COM 2420 or permission of instructor
This course teaches intermediate single camera video production terms and techniques. Students will perform video exercises. In addition, students write, produce, and direct a single camera video program that has a specific purpose and audience. Students will also plan and schedule a remote production, and subsequently edit a finished videotape program.

COM 3440-3 Scriptwriting for Video (3 + 0)
Prerequisite: ENG 1010 or permission of instructor
This course stresses the principles of nonbroadcast video and narrowcast programs, in addition to the organization and writing of story outlines, treatments, formats and scripts. It pro-

vides training in the fundamentals of visual and audio applications and includes viewing and analysis of video productions.

COM 3450-3 Intermediate Multimedia/Web Production (3 + 0)
Prerequisite: COM 2450 or permission of instructor
This course identifies and develops the skills that are required to produce Web-based multimedia projects. The students will design the information and work with the graphic, audio, animation and video elements necessary to produce a multimedia program that has a specific corporate/educational purpose and audience.

COM 3470-3 Writing for Interactive Media (3 + 0)
Prerequisite: ENG 1010 or permission of instructor
This course covers the techniques of writing for interactive media, which includes the Web, multimedia and DVD. The student will create content outlines, storyboards, flowcharts and a variety of preproduction documents.

COM 3480-3 Interactive 3D Production (3 + 0)
Prerequisite: COM 2610 or permission of instructor
The student will learn 3D modeling, animation and rendering techniques. In addition, the student will learn how to light models, how to set up virtual cameras and waypoints, and how to incorporate the models into other environments.

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 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 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 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 Media Productions (3 + 0)
Prerequisites: senior standing or 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
This course stresses the methods and techniques for budgeting and planning. Viewing and analysis of programs also occurs. Scheduling in terms of time, equipment, materials and cost is covered. Evaluation techniques and ethical situations are studied. (Senior Experience)

COM 4420-3 Advanced Single Camera Video Production (3 + 0)
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 single camera 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 4450-3 Advanced Multimedia/DVD Production (3 + 0)
Prerequisite: COM 3450 or COM 2470
This course identifies and develops the skills that are required to manage and produce multimedia and DVD projects. The course covers project development and evaluation, budgets, production elements, technology trends and project management.

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 field experience 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 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 include 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. (Senior Experience)

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 1040-3 A Citizen's Guide to Economics (3 + 0)
Prerequisites: minimum performance standards on the reading, writing, and mathematics placement tests.
This course introduces students to basic economic concepts and reasoning, the legal foundations of a market-based economic system, the fundamentals of the macroeconomy, and the foundations of the global economy. Students will be exposed to measurements of a nation's macroeconomy, money and banking, the role of government in the economy, the importance of the international economy, and myths about markets. A key feature of the course is the application of economic reasoning to real world problems. (General Studies—Level II, Social Sciences)

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 Youth, Drugs and Gangs (2 + 0) (HSP 4540, CJC 405B)
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 (Part of the course is taught online)

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 (Part of the course is taught online)

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 (Part of the course is taught online)

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 evidencedby 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 (Part of the course is taught online)
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 American Sign Language I (3 + 0) (MDL 1610, SPE 1610)
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 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 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 95 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 for Non-Majors (3 + 0)
Prerequisite: satisfaction of Level I General Studies requirements
This course is intended for non-English majors who plan a career in elementary education or who have a general interest in the subject of children's literature, that is, writing intended for an audience ranging from pre-readers to early adolescents. This 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 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 3070-3 Old English (3 + 0)
Prerequisite: Any one of the following: ENG 2010, 3020, 3030, 3040, 3050, 3060, ANT 2330 or permission of instructor
This course covers the basic vocabulary and grammar needed to read texts in Old English with the aid of a dictionary. It also addresses the relevant cultural and historical context necessary for understanding the texts. The course is designed for English, Modern Language, and History majors, as well as Language/Ligustics minors.

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
This course is 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 3521-3 Creative Writing Workshop: Poetry (3 + 0)
Prerequisite: ENG 2500 or permission of instructor
This class will include group discussions and supervised workshops and projects in poetry.

ENG 3522-3 Creative Writing Workshop: Fiction (3 + 0)
Prerequisite: ENG 2500 or permission of instructor
This class will include readings, lectures, group discussions and supervised workshops and projects in writing fiction.

ENG 3523-3 Creative Writing Workshop: Drama (3 + 0)
Prerequisite: ENG 2500 or permission of instructor
This class will include readings, lectures, group discussions and supervised individual projects in writing dramatic literature.

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)
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.

ENG 4660-3 Teaching Literature and Language K–6 (3+0)
Prerequisites: satisfaction of all Level I and Level II General Studies requirements, senior standing and completion of ENG 3020 and ENG 3460 or permission of instructor
This course focuses on the comprehension and teaching of literature and language for K–6 students, with emphasis on the elements, characteristics, and type of literature and on the forms, functions, and uses of language, grammar, and usage. (Senior Experience)

ENVIRONMENTAL SCIENCE

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 courses 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: ACC 2010 with a grade of "C" or better, ECO 2010, ECO 2020 and 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: ACC 2010 with a grade of "C" or better, ECO 2010, ECO 2020 and 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 or minor 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 2010, 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, and forecasting, time value of money, security valuation, capital budgeting, capital structure, the cost of capital, and working capital management.

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 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 3300 with a grade of "C" or better, and junior or senior standing
This is an advanced, integrated study of investment risks and returns, the development of modern portfolio theory, financial statements, capital budgeting, and working capital issues. Use of financial calculators and Excel spreadsheets is required to analyze financial problems.

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: Business major or minor with junior or senior standing
The course provides the student with the basic concepts of estate planning and importance in 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 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 with a grade of "C" or better 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. This is the capstone and assessment course for finance majors with a concentration in financial services.

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 4750-3 Seminar in Personal Financial Planning (3 + 0)
Prerequisities: FIN 3420, FIN 3450, FIN 3600, ACC 3090 or ACC 4100
This is a senior-level integrative course for finance majors concentrating in personal financial planning. It brings together the various aspects of financial planning with heavy emphasis on case studies.

FIN 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.

FIRST-YEAR SEMINAR

This course is offered under the following course prefixes; ANT, CJC, ENG, HON, HPL, PSC, RDG, SOC, SPE, SWK, WMS.

XXX 1190-3 First-Year Seminar (3 + 0)
This course is based on analyzing a first year college student's experiences through social, psychological and educational frameworks. Readings serve as multi-perspective models of living in the world; students use them as objects of inquiry. After close examination and class discussion, students write reaction, review or short research papers using the personal voice to demonstrate their increasing awareness about how the various issues affect them. Students build a body of writing that reflects their evolving role in academic life. The purpose of the course is to ease students' transition into college through group discussions, written assignments, collaborative projects, oral presentations and experiential learning. (Multicultural)

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 Cultural Crossroads: France, Germany, Spain (3 + 0) (GER 3050, MDL 3050, SPA 3050)
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, & 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, & satisfaction of Level I General Studies course requirements
This course provides in-depth presentations and analysis of recent social, cultural, political, and economic issues important to an understanding of contemporary France. (General Studies—Level II, Social Sciences)

FRE 3800-1–15 International Advanced French (1–15 + 0)
Prerequisite: junior or senior standing in French or equivalent
This course recognizes upper-division study in language, culture, and literature in a study-abroad setting. It uses a variety of methods and includes reading, writing, and discussion seminars in French.

FRE 4520-3 Modern French Theater (3 + 0)
Prerequisites: three years of college French or equivalent, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, senior standing
This is a sampling of the French dramatists who have not only contributed to literary development, but who also have had an impact on society and culture. Theater analysis techniques will also be stressed. (Senior Experience)

FRE 4530-3 The French Novel (3 + 0)
Prerequisites: three years of college French or equivalent or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, senior standing
This is a sampling of 19th- and 20th-century French novels that will be studied in depth using several literary analysis techniques. (Senior Experience)

FRE 4750-3 Senior Seminar in French Studies (3 + 0)
Prerequisites: senior standing, at least two courses at the FRE 3000-level
This is an intense thematic seminar on either a literary or cultural topic emphasizing a comparative study in the former and a multidisciplinary approach to the latter.

GEOGRAPHY

GEG 1000-3 World Regional Geography (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
This course presents the study of the formation, behavior, and interaction of social, political, cultural, and economic regions throughout the world. (General Studies—Level II, Social Sciences)

GEG 1100-3 Introduction to Physical Geography (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
This survey course is designed to provide an understanding of all the elements of the physical environment. The course emphasizes the four spheres: the atmosphere (weather and climate), the lithosphere (soils, geology, and landforms), the hydrosphere (oceans, streams, and groundwater), and the biosphere (vegetation and animals). (General Studies—Level II, Natural Science)

GEG 1120-1 Orienteering (0 + 2)
This course familiarizes students with the reading and interpretation of topographic maps and the use of the compass. Orienteering exercises are conducted in the field.

GEG 1220-2 Map Use (1 + 2)
This is an introductory course providing basic information on the use and interpretation of maps, map projections, map scale, map symbols, remote sensing, and Geographical Information Systems.

GEG 1240-3 Landforms of the U.S. (3 + 0)
Students study the physical features of the earth's surface and the shape or form of the landscape as influenced by interaction between basic earth processes and rock types, structure, climate, and weathering. U.S. and especially Colorado, examples are used to illustrate landforms.

GEG 1300-3 Introduction to Human Geography (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
This course is an introduction to geographic perspectives, concepts, and methods as they apply to the study of human activities. Special emphasis is placed on patterns of human distribution, adjustments to the natural environment, land use practices, and culture traits. (General Studies—Level II, Social Sciences)

GEG 1500-1–3 Current Topics in Geography: Variable Topics (1–3 + 0)
Prerequisite: permission of instructor
These courses cover important topics in geography, usually involving contemporary issues. The course content will vary and the course may be repeated for credit as the course topic changes.

GEG 1530-1 Ghost Towns of Northern Colorado (1 + 0)
This course investigates the ghost towns of northeastern Colorado. Through lecture and field work, students will learn how perceptions of the land affected settlement patterns and land use in northeastern Colorado. Related topics include use of the land by Native Americans, physical geography, transportation patterns from trails to highways, planned communities and the Buffalo Commons proposal. Note: Students cannot take both GEG 1530 and GEG 3530 for credit.

GEG 1610-1 Introduction to Planning (1 + 0)
This course provides an overview of the role of planning in land use, different types of planning processes, public and private sector actors, skills required of planners, and planning documents and maps.

GEG 1920-3 Concepts and Connections in Geography (2 + 2)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment tests
This course will cover basic concepts and themes of geography as well as the primary division of the discipline. Topics include major world regions and the interconnections between them, the geography of human activities, physical geography, and human interaction with the environment. Basic geographic tools, methodologies and theories are used as keys to understanding past, present, and future events in the world. The region of the Middle East will be used to demonstrate relationships between physical and human geography and resource development. (General Studies–Level II, Social Sciences)

GEG 2020-3 Geography of Colorado (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing and mathematics preassessment placement tests
This course presents the study of the physical, economic, and cultural features of Colorado. These features include climate, landforms, history, water resources, energy and minerals, mining, soil, natural vegetation, agriculture, population characteristics, the economy, current issues, as well as their interactions, and the overall geographic setting. (General Studies—Level II, Social Sciences)

GEG 2100-2 Geography of Latin America (2 + 0)
Prerequisite: a course in geography or permission of the instructor
This course studies the physical, political, and economic geography of Latin American countries. The course emphasizes contemporary land-use patterns and use of natural resources.

GEG 2200-3 Geography of the United States (3 + 0)
Prerequisite: six hours of earth science courses
This course is a survey of the geography of the U.S., including an overview of the physical characteristics, landforms, climate, soil, vegetation, and natural resources. Regions of the U.S. are studied, including the distribution of population, agriculture, industry, transportation, and culture. Geographic problems and issues are raised.

GEG 2300-3 Geographic Analysis of Social Issues (3 + 0)
Prerequisite: GEG 1300
This course is a geographic analysis of current social issues. Topics include urban spatial problems, such as crowding and crime, drugs and gangs, population growth, environmental perception, resource use, and culturally based land-use patterns. The administration of space, boundaries, territoriality, and spatial learning are discussed.

GEG 3000-3 Historical Geography of the U.S. (3 + 0)
Prerequisites: six hours of geography or permission of instructor; GEG 1300, GEG 2200, or HIS 1210 recommended
This course examines the unique interrelationships between geography and history. Topics covered include frontiers and boundaries, settlement patterns, environmental perception, sequent occupancy, changing land-use practices, migration, and urban growth. Further, the course addresses the interrelationships between different physical environments and cultural landscapes.

GEG 3300-3 Land Use, Culture and Conflict (3 + 0) (NAS 3300, PSC 3300)
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)

GEG 3360-3 Geography of Economic Activity (3 + 0)
Prerequisites: GEG 1000 or GEG 1300 plus six additional hours of geography and MTH 1210. ECO 2010 or ECO 2020 recommended
This course investigates the "economic landscape" and analyzes global patterns of spatial interdependence in a systems framework. Spatial economic models are examined through case studies and class exercises. The relationships between human activity and land-use patterns are examined in a world/regional context.

GEG 3520-2-3 Regional Geography: Variable Topics (2-3 + 0)
Prerequisite: six hours of earth science courses
Specific regions of the world will be selected for in-depth study. Topics will include physical and cultural geography, demographics, economic activity, urbanization, political geography and environmental issues. The course may be repeated for credit as a different region is studied.

GEG 3530-1 Advanced Ghost Towns of Northern Colorado (1 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor
This course examines the ghost towns of northeastern Colorado. Through lecture and field work, students will evaluate how perceptions of the land affected settlement patterns and land use in northeastern Colorado. Additional topics to be evaluated include use of the land by Native Americans, physical geography, transportation patterns from trails to highways, planned communities and the Buffalo Commons proposal. Note: Students cannot take both GEG 1530 and GEG 3530 for credit.

GEG 3600-3 Urban Geography (3 + 0)
Prerequisites: GEG 1000, GEG 1300
This course examines theories of urban development and factors that affect urbanization, such as demographic change, annexation, zoning, and infrastructure development. Models of urban land use are examined in the context of cities in the United States. Students learn how to prepare and analyze census-tract maps.

GEG 3610-3 Principles of Land Use Planning (3 + 0)
Prerequisites: six hours of geography, GIS 2250 recommended
In this course students learn basic land-use planning concepts and how to analyze land-use patterns, interpret land-use maps, and analyze existing land-use plans. Further, students learn how to collect relevant data, prepare a comprehensive land-use plan, and predict future planning issues. Special attention is paid to Geographic Information Systems (GIS) in land-use planning.

GEG 3630-3 Transportation Planning and Land Use (3 + 0)
Prerequisites: GEG 3610, six additional hours of geography
This course is an analysis of transportation systems as they relate to other types of land use. Transportation networks are examined in terms of types, patterns, and densities. Consideration is given to alternative transportation systems as they relate to energy savings, pollution prevention, and the reduction of congestion.

GEG 3920-2–6 Directed Study in Land Use (0 + 4–12)
Prerequisites: 15 hours in earth science courses and approval of instructor and department chair
This course provides an opportunity for upper-division students with a strong background in earth science to pursue study in a specific topic of interest and value. The course requires permission of the instructor and chair of the Earth and Atmospheric Sciences Department and frequent meetings between student and instructor.

GEG 4610-3 Urban and Regional Planning (3 + 0)
Prerequisites: GEG 3600, GEG 3610 or equivalent
This course studies the philosophy and scope of urban and regional planning and the principles and factors of planning and their interrelationships.

GEG 4620-3 Residential Land Use Patterns (3 + 0)
Prerequisite: GEG 3600 or GEG 3610 or six hours of urban studies courses
This course examines spatial patterns of urban growth, factors that affect housing, the role of nonprofit developers in the current housing market, as well as theories that explain the residential mosaic of North American cities. It includes an analysis of current housing trends as well as the housing types, densities, patterns and geographic distribution, as well as the interrelationships with other aspects of the urban environment, including infrastructure.

GEG 4640-3 Recreational Land Use Patterns (3 + 0)
Prerequisite: GEG 3610 or permission of instructor
This course considers various types of recreation space, including greenbelts; open space; wilderness areas; and national, state and local parks. It relates recreational land to the land-use planning process, as well as the environmental impacts of recreation.

GEG 4710-3 Legal Aspects of Land Use (3 + 0)
Prerequisite: ENV 4010 or GEG 3610 or permission of instructor
This course studies the laws, ordinances and regulations related to land use, as well as the role of federal, state and local government in regulating and controlling land use. The course makes use of case studies and local issues.

GEG 4950-2-15 Internship in Land Use (0 + 6–45)
Prerequisites: Land Use major with upper division standing plus 12 upper division hours of earth science courses and permission of the chair of the earth and atmospheric sciences department
This course provides an on-the-job internship experience with a land-use-related company or agency. The experience must be done under qualified supervision and under the direction of an earth and atmospheric sciences faculty member.

GEOLOGY

GEL 1010-4 General Geology (3 + 2)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
This course introduces the basic theories, concepts, and assumptions used in geology, utilizing both lecture and laboratory components. It includes internal and external processes, their products, and their effects on the environment. Students will learn to identify common rocks and minerals. A field trip is required. (General Studies—Level II, Natural Science)

GEL 1020-3 Geology of Colorado (3 + 0)
Prerequisite: minimum performance-standard scores on reading, writing, and mathematics preassessment placement tests
This course introduces the basic theories, concepts, and assumptions used in geology, focusing on the state of Colorado. The major geological provinces; mineral resources; common rock-forming minerals; and sedimentary, igneous, and metamorphic rocks of Colorado are covered. One field trip required. (General Studies—Level II, Natural Science)

GEL 1030-4 Historical Geology (3 + 2)
Prerequisite: GEL 1010 or permission of instructor
This course presents the origin and history of the Earth as well as the evolution of its life, based on the rock and fossil record. The course also reviews the changing geography of the Earth through geologic time, emphasizing the theory of plate tectonics. A field trip is required. (General Studies-Level II, Natural Science)

GEL 1150-3 Oceanography (3 + 0)
Prerequisite: minimum performance-standard scores on reading, writing, and mathematics preassessment placement tests
This introductory course studies the world's oceans, including historical explorations, physical and biological processes, energy sources, ocean resources, marine provinces, and geology of ocean basins. The course emphasizes global distribution, use, and control of ocean resources, and ocean pollution. (General Studies—Level II, Natural Science)

GEL 1200-2 Gem and Mineral Collecting in Colorado (1 + 2)
Corequisite: Physical ability to endure strenuous hiking at high elevations is necessary
This course focuses on the origin, geography and areas of occurrence of gemstones, as well as the physical mineral properties of gemstones.

GEL 1500-1-3 Current Topics in Geology: Variable Topics (1-3 + 0)
These courses cover topics of current geologic interest. The course content will vary and the course may be repeated for credit as the course topic changes.

GEL 1510-1 Geology of Red Rocks Park and Vicinity (1 + 0)
Prerequisite: GEL 1010 recommended
This course examines the geology of Red Rocks Park and vicinity, including rocks formed over a period of approximately two billion years. The geologic history includes Colorado's famous "disappearing" mountain range (the Ancestral Rocky Mountains), evidence of ancient oceans and deserts, dinosaur bones and tracks and the uplift of the modern-day Rocky Mountains. Note: Students cannot take both GEL 1510 and GEL 3510 for credit. (General Studies—Level II, Natural Science)

GEL 1520-2 Garden of the Gods—Front Range Geology (2 + 0)
Prerequisite: GEL 1010 recommended
This course examines the geology along the Front Range from Boulder to Colorado Springs through rock exposures covering a span of approximately two billion years. Along with basic concepts of geology, the formations exposed along the Front Range, including their ages, rock types, origins and economic products, are examined within a context of geologic history. Note: Students cannot take both GEL 1520 and GEL 3520 for credit. (General Studies—Level II, Natural Science)

GEL 1530-2 Geology of the Colorado Plateau (2 + 0)
Prerequisites: None; GEL 1010, GEL 1510, GEL 1520 and/or GEL 1560 are recommended
This course examines the geology of the eastern Colorado Plateau, including the geology of the Colorado National Monument, Arches National Park and Southern Canyonlands National Parks. Along with basic concepts of geology, the formations exposed in the eastern Colorado Plateau, including their ages, rock types and origins, are examined. Historical geology and geomorphology come to life in this beautiful, desolate, arid country. Students must be in good physical condition because strenuous hiking is involved, and students must have prior camping experience. Note: Students cannot take both GEL 1530 and GEL 3530 for credit.

GEL 1550-2 Geology of the Great Sand Dunes National Monument (2 + 0)
Prerequisite: GEL 1010 recommended
This course emphasizes the processes and landforms associated with the eolian (wind) and desert environments at the Great Sand Dunes National Monument, located in the San Luis Valley between the San Juan and Sangre de Cristo Mountains. Investigations of the dune fields allow students to identify various types of dunes, as well as damage related to desertification. The relationships of sand source areas, cross-bedding and transport directions are investigated. Note: Students cannot take both GEL 1550 and GEL 3550 for credit.

GEL 1560-2 Canoeing the Canyon Country (2 + 0)
Prerequisites: GEL 1010, GEL 1510, GEL 1520 and/or GEL 1530 recommended
This course examines the spectacular geology along a 32-mile stretch of the Colorado River between Fruita, Colorado and Westwater, Utah. Along with basic concepts of geology, the formations exposed in this portion of the eastern Colorado Plateau, including their ages, rock types and origins, are discussed. Historical geology and geomorphology come to life in this geologic wonderland. Note: Students cannot take GEL 1560 and GEL 3560 for credit.

GEL 1570-2 Geology of the Flattops Volcanic Wilderness Area (2 + 0)
Prerequisite: GEL 1010 recommended
This course emphasizes the igneous processes and products of the Flattops Wilderness Area of northwestern Colorado. Students study the lava flows exposed in the area and determine their source area. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1570 and GEL 3570 for credit.

GEL 1580-2 Geology of the Wheeler Geologic Area (2 + 0)
Prerequisite: GEL 1010 recommended
This course emphasizes the igneous processes and products of the Wheeler Geologic Area of southwestern Colorado. Students study the pyroclastic deposits exposed in the area and determine the sequence of events. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1580 and GEL 3580 for credit.

GEL 1590-1 Geology of Caves (1 + 0)
Prerequisite: GEL 1010 recommended
This course examines the origins of caves, including relationships to rock types, fracture systems, and groundwater chemistry, as well as the origin of and types of speleothems (cave formations). The course exposes students to the adventures of spelunking (caving). Note: Students cannot take both GEL 1590 and GEL 3590 for credit.

GEL 2700-3 Introduction to Petroleum Technology (3 + 0)
Prerequisite: GEL 1010
This course looks at the oil industry from the conception of a prospect through to drilling, testing, completion, transportation, marketing, refining, and sales. The course includes a consideration of the role petroleum products play in society, the future of petroleum, and the likely nonconventional replacements of petroleum.

GEL 2710-3 Computer Applications in Earth Sciences (2 + 2)
Prerequisites: GEG 1220, GEL 1010, and CSS 1010 (or CMS 1010), or permission of instructor
This course considers the theory behind contouring clustered subsurface data with the computer and introduces several commonly used mapping and contouring programs. In addition, there is discussion of well log analysis and using borehole data to produce both columnar and stratigraphic sections and subsurface cross sections.

GEL 3050-4 Mineralogy and Petrology (3 + 2)
Prerequisite: GEL 1010
This course examines minerals and rocks that make up the Earth's crust, including their origin, occurrence and identification. In addition to the recognition of hand specimens, this course utilizes the petrographic microscope and X-ray crystallography to identify minerals and rocks.

GEL 3060-4 Stratigraphy and Structure (3 + 2)
Prerequisite: GEL 1010; GEL 3050 recommended
This course analyzes vertical and horizontal stratigraphic and structural relationships within the Earth's crust. The stratigraphic portion of the course emphasizes transgressive and regressive sequences and unconformity boundaries (sequence stratigraphy) while the structural portion emphasizes three-dimensional relationships found in folded and faulted rocks. Field trips are required.

GEL 3120-4 Advanced Geomorphology (3 + 2)
Prerequisite: GEL 3060 or permission of instructor
This course is detailed analysis of the Earth's landforms, including their origins and sequential changes due to internal and surficial processes. Maps and aerial photographs are extensively used for geomorphic interpretations. Field trips are required.

GEL 3150-3 Hydrogeology (2 + 2)
Prerequisites: GEL 1010, MTH 1110 and MTH 1210 recommended
This course is a practical approach to the study of groundwater flow, with emphasis given to its chemistry, mode of migration, pollution, and relationship to the geologic environment. The course includes methods of exploration, well-log analysis, numerous laboratory exercises and field sampling. A field trip is required.

GEL 3420-4 Soil Resources (3 + 2)
Prerequisites: GEL 3050 and GEL 3120 or GEG 1240, or permission of instructor
This course analyzes the materials and processes that combine to produce various soil types. Soil types are examined in relationship to climate, landforms, vegetation, and geology, as well as in relationship to land-use patterns. Required field trips investigate soil mapping techniques.

GEL 3440-4 Energy and Mineral Resources (3 + 2)
Prerequisites: ENV 1400 and GEL 3050, or permission of instructor
This course investigates mineral resources and reserves that serve our industrial society. It includes a detailed examination of the origin, physical characteristics, and distribution of mineral resources, including metals and nonmetals, and energy resources, including fossil fuels and alternative energy resources. Field trips are required.

GEL 3510-1 Advanced Geology of Red Rocks Park and Vicinity (1 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor
This course requires an analytical approach to the geology of Red Rocks Park and vicinity, including rocks formed over a period of approximately two billion years. The geologic history includes Colorado's famous "disappearing" mountain range (the Ancestral Rocky Mountains), evidence of ancient oceans and deserts, dinosaur bones and tracks and the uplift of the modern-day Rocky Mountains. Note: Students cannot take both GEL 1510 and GEL 3510 for credit. (General Studies—Level II, Natural Sciences)

GEL 3520-2 Advanced Garden of the Gods—Front Range Geology (2 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor
This course requires an analytical approach to the geology along the Front Range from Boulder to Colorado Springs through rock exposures covering a span of approximately two billion years. Along with basic concepts of geology, the formations exposed along the Front Range, including their age, rock types, origins and economic products, are analyzed within a context of geologic history. Note: Students cannot take both GEL 1520 and GEL 3520 for credit. (General Studies—Level II, Natural Science)

GEL 3530-2 Advanced Geology of the Colorado Plateau (2 + 0)
Prerequisites: nine hours of geography or geology or permission of instructor; GEL 3510, GEL 3520 and/or GEL 3560 recommended
This course requires an analytical approach to the geology of the eastern Colorado Plateau, including the geology of the Colorado National Monument, Arches National Park, and Northern and Southern Canyonlands National Parks. Along with basic concepts of geology, the formations exposed in the eastern Colorado Plateau, including their ages, rock types and origins, are analyzed. Historical geology and geomorphology come to life in this beautiful, desolate, arid country. Students must be in good physical condition because strenuous hiking is involved, and students must have prior camping experience. Note: Students cannot take both GEL 1530 and GEL 3530 for credit.

GEL 3550-2 Advanced Geology of the Great Sand Dunes National Monument (2 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor
This course analyzes the processes and landforms associated with the eolian (wind) and desert environments at the Great Sand Dunes National Monument, located in the San Luis Valley between the San Juan and Sangre de Cristo Mountains. Analysis of the dune fields allows students to identify various type of dunes, as well as damage related to desertification. The relationships of sand source areas, cross-bedding and transport directions are analyzed. Note: Students cannot take both GEL 1550 and GEL 3550 for credit.

GEL 3560-2 Advanced Canoeing the Canyon Country (2 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3510, GEL 3520 and/or GEL 3530 recommended
This course requires an analytical approach to the spectacular geology along a 32-mile stretch of the Colorado River between Fruita, Colorado and Westwater, Utah. Along with basic concepts of geology, the formations exposed in this portion of the eastern Colorado Plateau, including their ages, rock types and origins, are analyzed. Historical geology and geomorphology come to life in this geologic wonderland. Note: Students cannot take both GEL 1560 and GEL 3560 for credit.

GEL 3570-2 Advanced Geology of the Flattops Volcanic Wilderness Area (2 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3050 recommended
This course requires an analytical approach to the igneous processes and products of the Flattops Wilderness Area of northwestern Colorado. Students analyze the lava flows exposed in the area to determine their source area. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1570 and GEL 3570 for credit.

GEL 3580-2 Advanced Geology of the Wheeler Geologic Area (2 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor; GEL 3050 recommended
This course requires an analytical approach to the igneous processes and products of the Wheeler Geologic Area of southwestern Colorado. Students analyze the pyroclastic deposits exposed in the area and determine the sequence of events. The problems of mid-continent magma genesis and its relationship to plate tectonics are also explored. Note: Students cannot take both GEL 1580 and GEL 3580 for credit.

GEL 3590-1 Advanced Geology of Caves (1 + 0)
Prerequisite: nine hours of geography or geology or permission of instructor
This course requires an analytical approach to the origins of caves, including relationships to rock types, fracture systems, and groundwater chemistry, as well as the origin of and types of speleothems (cave formations). The course exposes students to the adventures of spelunking (caving). Note: Students cannot take both GEL 1590 and GEL 3590 for credit.

GEL 3700-3 Integrated Geotechnology (2 + 2)
Prerequisites: GEL 2700 and GEL 2710, or permission of instructor
This course is a continuation of GEL 2700, Introduction to Petroleum Technology, and it emphasizes the integration of the data and methods of petroleum geology and geophysics, land and leasing, and engineering. Students will receive practical experience in gathering and organizing disparate data sets, and in making basic interpretations in the form of reports, maps, and cross sections. The goal is for the student to gain basic understanding of the needs and responsibilities of the professionals that interact with geologists in a corporate and small-company environment.

GEL 3710-3 Earth Sciences Data Management (2 + 2)
Prerequisite: GEL 2710 or permission of instructor
This course defines the special nature of geological data and shows the various ways to produce databases for information management as well as for extracting mapping and other analysis data. The emphasis is on using commonly available computer data management programs.

GEL 3920-2–6 Directed Study in Geology (0 + 4–12)
Prerequisites: 15 hours in geology; approval of instructor and department chair
This course provides an opportunity for upper-division students with a strong background in geology to pursue study in a specific topic of interest and value. The course requires permission of the instructor and chair of the Earth and Atmospheric Sciences Department and frequent meetings between student and instructor.

GEL 4150-3 Hydrology (2 + 2)
Prerequisite: GEL 3150
This course examines surface and subsurface waters with respect to water flow, drainage systems, storage, pollution and environmental relationships. The hydrologic cycle is studied with respect to surface water distribution. This course uses knowledge gained from GEL 3150 (Hydrogeology) in practical applications.

GEL 4700-3 Subsurface Geology (3 + 0)
Prerequisites: GEL 3700 and GEL 3710, or permission of instructor
This course guides students through geological interpretation using field observations, well logs, samples, cores, seismic sections, and other indirect methods. The course then teaches the students how to present the interpretations in a meaningful way. Well log analysis and subsurface mapping use computer methods where they are appropriate.

GEL 4950-2–15 Internship in Geology (0 + 6–45)
Prerequisites: land use major with geology emphasis with upper division standing plus 12 upper-division hours in geology, permission of the chair of the earth and atmospheric science department
This course provides an on-the-job internship experience with a geology-related company or agency. The experience must be done under qualified supervision and the auspices of an earth and atmospheric sciences faculty member.

GERMAN

GER 1000-3 German for Travel I (3 + 0)
This course is designed to concentrate on basic conversational skills for travelers. It does not fulfill the prerequisite requirements for any 2000-level course.

GER 1001-3 German for Travel II (3 + 0)
Prerequisite: GER 1000 or equivalent or permission of instructor
This course is a continuation of GER 1000 and includes modes of travel, hotel/restaurant operations, and etiquette in the world of travel and hospitality. It does not fulfill the prerequisite requirements for any 2000-level course.

GER 1010-5 Elementary German I (5 + 0)
This is an introductory course in German, including pronunciation, grammar, and reading, with emphasis on speaking and understanding.

GER 1020-5 Elementary German II (5 + 0)
Prerequisite: GER 1010, or one or two years of high school German
This is a continuation of GER 1010. (General Studies—Level I, Communications)

GER 1800-1–15 International German Year I (1–15 + 0)
This is a variable-credit course for first-year students learning German in a study-abroad setting. It recognizes an approved study-abroad educational experience in German speaking, comprehension, reading, and writing.

GER 2110-3 German Reading and Conversation (3 + 0)
Prerequisite: one year of college German or equivalent or permission of instructor
This course prepares the student to read and to communicate with ease in German. It emphasizes vocabulary and idiomatic phrases used in everyday language.

GER 2120-3 German Civilization (3 + 0)
Prerequisite: one year of college German or equivalent or permission of instructor
This course emphasizes the broadening of reading and conversational skills. It introduces the student to various aspects of German civilization, from its geography and history to its philosophical and political thought, arts, music, and modern living.

GER 2310-3 German Vocabulary Building and Grammar (3 + 0)
Prerequisite: one year of college German or equivalent or permission of instructor
This course is designed to strengthen the student's grammatical background by reinforcing old principles and introducing new, more advanced principles of grammar and to increase vocabulary.

GER 2320-3 German Composition and Free Writing (3 + 0)
Prerequisite: one year of college German or equivalent or permission of instructor
This course is designed to strengthen the student's writing skills. It exposes the student to various topics of interest to today's college student. In addition to the textbook, informative films will be presented and articles from German newspapers and magazines will be used.

GER 2800-1–15 International German Year II (1–15 + 0)
Prerequisite: one year of college German or equivalent
This variable-credit course recognizes second-year study of German language and culture in an approved study-abroad setting.

GER 3010-3 Third Year German Conversation (3 + 0)
Prerequisite: GER 2110 or 2120 or four years of high school German
This course strengthens conversational ability with more complicated idiomatic and structural elements, using techniques such as skits, debates, and small-group discussions to improve fluency and broaden the scope of communication. Conducted in German.

GER 3050-3 Cultural Crossroads: France, Germany, Spain (3 + 0) (FRE 3050, MDL 3050, SPA 3050)
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.

GER 3150-3 German Phonetics: Theory and Practice (3 + 0)
Prerequisite: two years of college German or equivalent or permission of instructor
This course covers improvement of pronunciation and speech habits based on an understanding of the phonetics of German. After an introduction to the basic speech mechanism through principles of linguistics, the course offers practice in pronunciation through the declamation of selected texts.

GER 3200-3 German Culture and Civilization (3 + 0)
Prerequisites: two years of college German or equivalent or permission of instructor and satisfaction of Level I General Studies course requirements
This course is an advanced German conversational approach to the main cultural events that have shaped German lifestyles. Historical events, as well as modern German lifestyles of Germany, Austria, and Switzerland are discussed. The format is reading-discussion, conducted in German. Students are required to give oral presentations. (General Studies—Level II, Arts and Letters)

GER 3210-3 Survey of German Literature I (3 + 0)
Prerequisite: two years of college German or equivalent or permission of instructor
This course provides an insight into German historical and cultural development through selected readings in German literature, from its beginning to the 18th century.

GER 3220-3 Survey of German Literature II (3 + 0)
Prerequisite: two years of college German or equivalent or permission of instructor
This course covers the history of German literature of the 18th, 19th, and early 20th centuries, including selected readings of principle German authors, lectures on biography and criticism, and recitation. Conducted in German.

GER 3230-3 Contemporary German Writers (3 + 0)
Prerequisite: two years of college German or equivalent or permission of instructor
After a rapid survey of philosophical, political, economic, and social backgrounds, this course emphasizes works of distinguished contemporary authors. Lectures on biography and criticism are interspersed as convenient. A term paper is assigned. Conducted in German.

GER 3300-3 Advanced German Grammar (3 + 0)
Prerequisites: GER 2310, 2320 or permission of instructor
This course is designed to prepare the student for the demands of the use of literary and scientific German at advanced levels. The student is led into an appreciation of the deeper structures of the language and the functional aspects of grammar in communication.

GER 3400-3 German for Business I (3 + 0)
Prerequisite: GER 2310 or permission of instructor
This course is for students who plan to do business with people in German-speaking countries. Incorporates specialized language pertaining to marketing, banking, the structure of corporations, and the code of behavior in the business world; the social protection of the gainfully employed; transportation; import; and export. Excellent exercises for reading/comprehension on today's topics are included.

GER 3410-3 Translation Techniques for Scientific Materials (3 + 0)
Prerequisite: GER 2320 or permission of instructor
This course is designed for the understanding of writings in the field of science. Attention is given to the specialized vocabulary, idioms, and sentence structure in this field. Translations on up-to-date topics are from German into English, facilitating reading and comprehension.

GER 3800-1–15 International Advanced German (1–15 + 0)
Prerequisite: junior or senior standing in German or equivalent
This course recognizes upper-division study in language, culture, and literature in a study-abroad setting. It uses a variety of methods and includes reading, writing, and discussion seminars in German.

GER 4020-3 Advanced German Composition (3 + 0)
Prerequisite: three hours of third-year college German
This course is an advanced study of the application of vocabulary, idiomatic expressions, and grammatical structures necessary for effective written communication. It includes review and expansion of various grammatical topics, exercises on stylistics, and considerable expansion of the student's vocabulary. Conducted in German.

GER 4200-3 Major German Authors (3 + 0)
Prerequisites: nine hours of German above 1020 or permission of instructor, senior standing necessary if used for Senior Experience requirement
The course traces in representative works the artistic and intellectual development of major German authors who have gained a place in world literature. Class periods will be devoted to historical background, biographies, group discussions and analysis. Class is conducted in German, requiring oral and written reports. (Senior Experience)

GER 4210-3 Advanced Conversation: Present-day Germany (3 + 0)
Prerequisite: three hours of third-year college German or permission of instructor
This course is designed to help the student develop an understanding of present-day Germany. Recent and current socioeconomic changes and political trends are emphasized. Articles in recent issues of a leading German periodical are used as basis for classroom discussion, student reports, and themes.

GER 4400-3 German for Business II (3 + 0)
Prerequisites: nine hours of German above 1020 or permission of instructor, senior standing necessary if used for Senior Experience requirement
The course focuses on business topics with specialized language pertaining to industry, marketing, finance, social welfare, the consumer in general and the environment. Class is conducted in German, requiring oral and written reports. (Senior Experience)

GER 4410-3 Advanced Translation Techniques (3 + 0)
Prerequisites: GER 3310 or permission of instructor, senior standing necessary if used for Senior Experience requirement
This course practices the different translation techniques (from German to English and from English to German) in a variety of materials taken from economics, law, medicine, the fine arts, biographies, geography, history, and others. Attention is given to the unique tone of each document. (Senior Experience)

GEOGRAPHIC INFORMATION SYSTEMS

GIS 1710-2 **Terrestrial Navigation (1 + 2)**
This course is an introduction to the science of land navigation. Students will use celestial sights, maps and Global Positioning System (GPS) to locate positions in the field. There are required field exercises.

GIS 2250-3 **Introduction to Geographic Information Systems (2 + 2)**
Prerequisites: GEG 1220 and CSS 1010 (or CMS 1010) or permission of instructor
This is an introductory course that provides students with the basic theoretical, technical, and application knowledge of Geographic Information Systems (GIS). It introduces and provides direct experience with the techniques used to manipulate and display spatial data using GIS.

GIS 3210-4 **Introduction to Cartography (2 + 4)**
Prerequisite: GEG 1220
This course provides instruction in the use and interpretation of maps, as well as the tools and constructional techniques of maps. Students will construct a variety of maps at different map scales and projections and critique their effectiveness.

GIS 3220-3 **Intermediate Cartography (1 + 4)**
Prerequisite: GIS 3210
This course emphasizes the production of monochromatic, multitone, thematic maps using scribing and photographic techniques. Alternative methods of representing relief features will be explored, including construction of physiographic block diagrams, pictorial maps, and contour maps.

GIS 3250-3 **Computer Cartography (2 + 2)**
Prerequisites: GIS 2250, GIS 3210 recommended
This class focuses on using and integrating a variety of computer graphic programs, geographic information systems, and Web authoring tools to produce map compositions and Web pages from various gathered digital data. Students will gain experience with finding data, data conversion, graphics generation, and Web development. The class explores the concept of cartographic visualization in the form of map animation and the production of 'soft copy' map projects to illustrate temporal geographic changes, virtual worlds, and three-dimensional views of terrains and landscapes.

GIS 4840-3 **Remote Sensing (3 + 0)**
Prerequisites: GEG 1220 and either GEG 1100, GEG 1240, or GEL 1010, and six hours of upper-division geography or geology courses or permission of instructor
This course, designed for geoscience students, provides a survey of remote sensing technologies, applications, and industry. The course exposes the student to the techniques of extracting relevant information from both hardcopy and digital imagery. The application of remote sensing techniques and technology to the fields of Land-Use Planning and Geographic Information Systems (GIS) is stressed. Introductions to the electromagnetic spectrum, energy sources, radiation principles, aerial cameras, electronic imaging, and various high-altitude and space-based collection systems provide the student with the initial building blocks to a thorough understanding of remote sensing.

GIS 4850-3 **Advanced Geographic Information Systems (2 + 2)**
Prerequisites: GIS 2250 plus upper division standing or permission of instructor
This course offers an opportunity for upper-division students with a solid background in the fundamentals of Geographic Information Systems (GIS) to apply the analytical capabilities of this technology to model real-world situations in support of decision making. Particular emphasis is given to the specific conditions, requirements, and processing considerations surrounding effective GIS modeling and decision making. Issues of design and development of GIS and their implementation are discussed and analyzed.

GIS 4860-3 **Applications of ARC/INFO to Natural Resources Management (1 + 4)**
Prerequisite: GIS 2250
This course emphasizes the application of ARC/INFO and AML (ARC Macro Language) to the management of natural resources.

GIS 4870-3 Spatial Databases Design, Implementation, and Management (2 + 2)
Prerequisites: GIS 2250 and GIS 4860
This is a course on the fundamentals of proper design, implementation and management of spatial databases. The logical and physical designs of a geographic database are studied in detail. Particular emphasis is given to the set of practical guidelines and considerations surrounding the design, implementation, and management of an effective and efficient spatial database. The theory and concepts are reinforced by demonstrations and hands-on exercises using popular commercial Geographic Information Systems (GIS) and Database Management Systems (DBMS).

GIS 4890-3 Advanced GIS Laboratory (1 + 4)
Prerequisites: senior standing, GIS 4850, GIS 4860, and GIS 4870 or permission of instructor
A senior-level capstone course for land use majors emphasizing Geographic Information Systems (GIS). Students will solve a natural resources related problem applying GIS technology. Students will prepare and present final reports for their projects. (Senior Experience)

HEALTH CARE MANAGEMENT

HCM 3010-3 Health Care Organization (3 + 0)
Prerequisite: junior or senior standing or permission of instructor
This courses analyzes the organizational structure of the health care system in the U.S. The nature of health and health care delivery is assessed. Emphasis is placed on the interrelatedness of cultural, economic, political, technological, and social aspects of health care delivery, along with its services and management. Disease origins and epidemiology are explored.

HCM 3020-3 Management Principles in Health Care (3 + 0)
Pre or Corequisite: HCM 3010
This is a course that is designed to provide a general orientation to management practices in the field of health care. The focus is on management concepts, processes, and theoretical content considered necessary for persons who intend to practice in a health care management position. Emphasis is placed on the differences in management of health care from other commodities and the importance of patient care and ethical issues. Tradeoffs between patient care issues and financial accountability are addressed.

HCM 3030-3 Health Care Jurisprudence (3 + 0)
Pre or Corequisite: HCM 3010
This course examines the legal and ethical issues involved in the management and delivery of health care services. Emphasis is placed on law as it pertains to medical negligence, malpractice/professional liability, medical records/information management, patient consent, confidentiality/privacy, patient rights/responsibilities, contracts, labor relations, and other current issues.

HCM 3300-3 Management Issues and Health Policy (3 + 0)
Pre or Corequisites: HCM 3010 and HCM 3020
This course is designed to discuss the role of the health care manager in health care planning and strategic management. The political process as it relates to health policy development and implementation is explored. Emphasis is placed on how health care organizations adapt in a rapidly changing health care environment, particularly to regulatory and policy changes. Different sectors of the health care industry are discussed, such as hospitals, physician practices, long-term care, and governmental providers.

HCM 3500-3 Health Care Research Methods (3 + 0)
Pre or Corequisites: HCM 3010 and statistics
This course examines the research process, research terminology and the role of research as a tool for understanding and improving financing, delivery and management in health care organizations. Students critique relevant research articles, explore sources of funding for research projects, and apply this knowledge to health care management projects.

HCM 4020-3 Human Resources Management in Health Care (3 +0)
Pre or Corequisites: HCM 3010 and 3020
This course is designed to analyze human resource management functions as they affect employee productivity and satisfaction in health service organizations. The course stresses functions, structure, laws, and principles that are significant in human resource management in health care organizations. Discussion emphasizes managing health care personnel shortages, usage of non-licensed assistive personnel, and other clinical personnel.

HCM 4030-3 Financial Management in Health Care (3 + 0)
Prerequisites: HCM 3010, HCM 3020, ACC 1010 or ACC 2010, and a departmentally approved computer course; or permission of instructor
This course surveys the organizational and operational aspects of fiscal analysis and control of health care institutions. Particular attention is given to the importance of third party payer and reimbursement issues. Emphasis is placed on the practical processes involved in the determination and analysis of tax status, revenues, costs, charges, inventory/materials management, working capital levels, budgets, and financial reporting.

HCM 4040-3 Health Care Economics (3 + 0)
Prerequisites: HCM 3010 and ECO 2020
This course examines the major economic issues facing the health care industry. Emphasis is on the major elements of economic theory from a micro-economic perspective and how these theories are applied in the health care sector. Policies that enhance access to care and contain medical costs are explored. Other key issues include: analysis of medical care markets; demand for health, health care, and health insurance; supply of health care professionals; and the effects of societal and technological changes on the provision of health care services.

HCM 4500-2 Health Care Management Pre-Practicum (2 + 0)
Prerequisites: all 3000-level HCM courses, HCM 4020, all required support courses. (This course must be taken the semester prior to HCM 4510.)
This is a preparatory course required of HCM majors prior to taking HCM 4510, the Health Care Management Practicum. Students are required to prepare a résumé, develop information interviewing skills, determine a health care placement agency and preceptor, and develop a proposal for a practicum project under faculty guidance.

HCM 4510-6 Health Care Management Practicum (1 + 10)
Prerequisites: HCM 4500, plus either HCM 4030 or 4040
A capstone course designed to provide the student with the opportunity to integrate and operationalize previously learned health care management knowledge and skills. The student completes a health management project. The management area of study and the practicum setting are mutually agreed upon by the student, the faculty member, and the health facility preceptor. Practical management topics are emphasized in seminar sessions. (Senior Experience)

HEALTH EDUCATION SERVICES

HES 1050-3 Dynamics of Health (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
An introductory course that investigates contemporary health issues. Emphasis is placed on those health issues that most frequently confront the college student. Subjects surveyed are current biological, psychological, sociological, and cultural factors that influence health in a changing society. Personal involvement in planning health improvement behaviors is encouraged through experiential learning. (General Studies—Level II, Social Sciences)

HES 1230-1 Understanding Medical Terminology (1 + 0)
This course introduces students to the basic Latin and Greek word parts that are combined to create medical terms and definitions of those terms. This will include terminology related to body structure, disease and treatment, and individual body systems. This course is a valuable introduction for any student interested in pursuing a career in a health-related field.

HES 2000-3 Health Politics and Policy (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests or permission of instructor
A basic study of the political issues impacting the planning and implementation of health care policy. Emphasis will be concentrated on the major factors that are dictating health care reform. The changing health care environment and the need for a universal/national health care policy will be considered. (General Studies, Level II, Social Sciences)

HES 2150-3 Complementary and Alternative Medical Therapies (3 + 0)
Prerequisites: satisfaction of the Level I mathematics requirement, and either ENG 1010 or the Level I communications requirement and HES 1050 or permission of instructor
This course is designed to acquaint students with a variety of nontraditional health and healing modalities in use in the United States today. It provides the basis for understanding the mechanisms and principles by which therapeutic responses are produced. The student will be required to develop and present a report related to a specific therapeutic modality. (General Studies—Level II, Natural Science)

HES 2180-3 AIDS: Acquired Immune Deficiency Syndrome (3 + 0)
Prerequisite: satisfaction of the Level I math requirement and either ENG 1010 or the Level I communications requirement
This course is designed to acquaint students with the dynamics surrounding HIV disease. It provides a forum to discuss the biological, psychological, social, cultural, economical, ethical, legal, and political ramifications of HIV disease. (General Studies—Level II, Social Sciences)

HES 2750-3 Introduction to Holistic Health (3 + 0)
Prerequisites: satisfaction of the Level I mathematics requirement and either ENG 1010 or the Level I communications requirement
Holistic health is the view that health is a complex combination of mind, body and spirit. This view takes into account the physical and social environment, is patient-centered, with the doctor and patient working in tandem toward positive health and wellness. This course explores biological, behavioral, cognitive, emotional, social, and spiritual factors in health, the research supporting a holistiic perspective, and practical applications of these ideas.

HES 3050-3 Therapeutic Touch (3 + 0)
Prerequisite: HES 2150 or permission of instructor
This course will explore the scientific, theoretical and clinical foundations of therapeutic touch. Contemporary research findings will be presented and potential research designs will be identified. The course will blend both didactic and experiential learning into a balanced, grounded approach to this new version of an ancient caring and healing art.

HES 3070-3 Parental Health Care Issues (3 + 0)
Prerequisite: PSY 3250
This course is designed to prepare the student for providing anticipatory guidance to parents in promoting the biological, psychological, and social health of their children. Emphasis is placed on health maintenance and illness/injury prevention. Consideration is given to the management of health problems and available resources.

HES 3170-3 Introduction to Homeopathy (3 + 0)
Prerequisite: HES 2150 or permission of instructor
This course is designed to give the student an overview of homeopathy. The course will include the history, laws and principles, and use of homeopathy in the current health care system. Students will be introduced to various homeopathic remedies and their uses. Contemporary research findings will be presented and potential research designs will be identified.

HES 3300-1 Research (1 + 0)
Prerequisite: a statistics course prior to or concurrent
Corequisite: NUR 3400 or HES 3420
This course introduces health professions students to the research process and terminology and acquaints them with a variety of research methodologies for scientific inquiry.

HES 3310-3 Introduction to Traditional Chinese Medicine (3 + 0)
Prerequisite: HES 2150 or HPL 1880 or permission of instructor
This course provides the basis for understanding the mechanisms and principles by which traditional Chinese medicine is practiced. The students will explore different therapeutic modalities. Course content includes traditional Chinese philosophy as applied to treatment in acupuncture, herbal medicine, massage therapy, T'ai Chi and Qi-Gong. This course requires individuals to be open to learning about different philosophical beliefs upon which Chinese medicine is based. (General Studies-Multicultural)

HES 3350-3 Ayurveda Therapy I: Introduction to Basic Principles (3 + 0)
Prerequisite: HPL 1850 or permission of instructor
This course is an introduction to the basic principles underlying Ayurveda and yoga therapies. This course will cover the history of Ayurveda and yoga, Ashtanga yoga, Kleshas, breath and thought waves, subtle body theory, the stress response, chakra theory, Samkhya theory and Ayurveda, integrated yoga practice, tridosha theory, assessing vikriti, agni, ojas and prakriti, and daily and seasonal regimens for preventive health maintenance.

HES 3420-2 Research: Gerontology Critique (2 + 0)
Prerequisite: a statistics course prior to or concurrent
Corequisite: HES 3300
Students critique current gerontology research studies for applicability of the findings to the field of aging. Students identify researchable problems in the gerontology field and have experiential learning with steps of the research process.

HES 3450-3 **Dynamics of Disease (3 + 0)**
Prerequisites: completion of all Level I General Studies requirements, and BIO 1000 or BIO 1080 and 1090, or permission of instructor
This course is designed to acquaint students with the processes, dynamics, and treatments of disease. The student will explore potential and actual health problems. This course will not meet the pathophysiology requirement for nursing students. (General Studies—Level II, Natural Science)

HES 3600-3 **Ethical Decision Making in Health Care (3 + 0)**
Prerequisite: major in health care related field
A course designed to assist nurses and others in health care fields to become familiar with an ethical decision-making model, apply ethical theories to dilemmas to determine courses of action and adopt an appropriate ethical decision-making framework for their own clinical practice.

HES 3650-1 **Ethical Decision Making in Health Care (1 + 0)**
Corequisite: NUR 3650 or HES 3660
This course assists nurses and other health care professionals to become familiar with an ethical decision making model, principles of biomedical ethics and selected normative theories of ethics in health care.

HES 3660-2 **Ethical Decision Making: Application to Gerontology (2 + 0)**
Corequisite: HES 3650
This course assists students who are interested in the field of gerontology to apply ethical values, principles and theories to dilemmas in the gerontology field and to adopt an appropriate decision making framework for their own gerontology practice.

HES 3750-3 **Clinical Pathophysiology I (3 + 0)**
Prerequisite: BIO 2320 or equivalent
This course is designed to familiarize the student with the nature of pathophysiology using major conceptual areas, as it evolves from the incipient stage to full development. Pertinent bio-chemical and metabolic derangements are correlated with the cellular structure of the body by applying systems theory. The student should have background knowledge in normal anatomy and physiology.

HES 3810-3
(BIO 3530) **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: HES or BIO. (General Studies-Level II, Natural Science)

HES 3820-3 **Health Care Counseling (3 + 0)**
This course is designed to prepare students to operationalize concepts and theories of health care counseling. The focus of this course is for students and professionals whose primary goal or role is not counseling, although counseling may be an important part of their responsibility. This course is designed for teachers, nurses, health educators and allied health professionals.

HES 4100-1-4 **Gerontology Topics: Variable Topics (1-4 + 0)**
Prerequisites: junior or senior standing and/or permission of instructor
This course focuses on gerontology topics and skills needed in the field of gerontology. The course is designed to provide an educational forum for integrating the gerontology theoretical base and the study of special gerontology issues and problems. This course may be repeated for credit under different topics.

HES 4350-3 **Ayurveda Therapy II: Prevention and Management of Chronic Conditions (3 + 0)**
Prerequisites: HES 3350 or permission of instructor
This course is a continuation from Ayurveda Therapy I. It covers the relationship between the psyche and the soma utilizing the Yogic and Ayurvedic techniques found in the classical texts of these two disciplines. Through different Yogic and Ayurvedic practices, the student will experience for themselves the influences of these practices on the psyche/soma. The student will experience asana, pranayama, mudra work, and marma point therapy, the effects of sound on the body/mind, daily and seasonal regimes for balancing the doshas and manas, cleansing practices, and Ayurvedic cooking instruction.

HES 4520-3-6 Internship in Gerontology (0 + 6-15)
Prerequisites: SOC 1040 and PSY 3270 and HES 3810 or BIO 3530, and all but one gerontology orientation options course
Restrictions: Students desiring a minor or certificate in gerontology need to register for at least three semester hours; students desiring a major in gerontology need to register for at least six semester hours
This course integrates and applies biological, psychological and sociological theories and all previously learned gerontology knowledge and skills to aging individuals in a gerontology setting. Student must meet with the gerontology advisor the semester before enrolling to arrange their internship site. (Senior Experience)

HES 4750-3 Clinical Pathophysiology II (3 + 0)
Prerequisite: HES 3750
This course provides an advanced understanding of pathophysiologic conditions utilizing systems theory. Pertinent bio-chemical and metabolic derangements are correlated with cellular structure to understand selected disease processes. The student should have background knowledge in normal anatomy and physiology.

HES 4970-3 Internship in Holistic Health and Wellness (1 + 6)
Prerequisites: senior standing and permission of the Health Professions department
This Holistic Health and Wellness capstone course allows the student to integrate and apply biological, psychological, sociological and cultural theories and all previously learned holistic health and wellness knowledge and skills to individuals in a health care setting. Under supervision, students will utilize all course work in collaborating with field experts in solving a problem related to holistic health and wellness. The holistic health and wellness area of study and the internship site are mutually agreed upon by the student, the faculty member, and the health setting. Students must meet with the Holistic Health and Wellness advisor the semester before enrolling to arrange their clinical site. The student spends one hour a week in seminar and six hours a week for 15 weeks in a clinical setting. (Senior Experience)

HISTORY

HIS 1000-3 American Civilization (3 + 0)
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
American Civilization is an entry-level American history course designed to trace the roots of contemporary America. (General Studies—Level II, Historical)

HIS 1010-3
(HON 1010) Western Civilization to 1603 (3 + 0)
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
A survey of the development of the culture and institutions of Western civilization: the earliest civilizations of the Middle East, the transitions of the classical Mediterranean world, and the development of Western Europe in the Medieval, Renaissance, and Reformation periods. Credit will be granted for only one prefix: HIS or HON (General Studies—Level II, Historical) (Guaranteed Transfer—HI1)

HIS 1020-3
(HON 1020) Western Civilization since 1603 (3 + 0)
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
A history and culture of Western civilization from 1603 to the present: the old regime and revolutions, 19th-century nationalism and liberalism, the crises of the 20th century, and the challenges of the 21st. Credit will be granted for only one prefix: HIS or HON (General Studies—Level II, Historical) (Guaranteed Transfer—HI1)

HIS 1030-3 World History to 1500 (3 + 0)
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
This course will introduce students to the world's civilizations and their development before 1500 from a broad, comparative framework. These civilizations will be studied from economic, intellectual, political, and social perspectives. (General Studies—Level II, Historical) (Guaranteed Transfer—HI1)

HIS 1040-3 World History since 1500 (3 + 0)
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
This course provides an introduction to important literature, themes, theories, concepts and methods of world history since 1500. (General Studies—Level II, Historical)

HIS 1100-3 **American West (3 + 0)**
Treats the growth and development of the Trans-Mississippi West from 1540 to 1900. Special attention will be paid to the economic and social factors that made the West a distinct region.

HIS 1110-3 **Colorado History I (3 + 0)**
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
This course covers the history of the growth and development of Colorado with primary emphasis on the 19th and early 20th centuries. It treats Native American and Hispanic influence; exploration; mining and trapping; early settlements, pioneer life, labor; and aspects of the State's political history. (General Studies—Level II, Historical)

HIS 1210-3 **American History to 1865 (3 + 0)**
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
Surveys the European background of American history, the colonial period, the Revolution, the development of the U.S. from Washington through Jackson, the sectional differences of the 1840s and 1850s, and the Civil War. (General Studies—Level II, Historical) (Guaranteed Transfer–HI1)

HIS 1220-3 **American History since 1865 (3 + 0)**
This course covers the immediate background to present-day America, beginning with the Civil War and culminating with the early 1990s. Such topics as industrialism, emergence of the U.S. as a world power, Progressivism, the First World War, the Great Depression, World War II, the Cold War, and U.S. social and political history in the second half of the 20th century will be treated. (General Studies—Level II, Historical) (Guaranteed Transfer–HI1)

HIS 1250-3 **China, Japan, Korea since 1800 (3 + 0)**
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
This course covers China, Japan, and Korea since 1800 emphasizing change and continuity in their politics, economies, and cultures. The course treats the historical tradition in East Asia, its erosion by internal and external challenges, the struggle of East Asian people to adjust to the new world order, and their effort to rebuild after World War II. The contribution of East Asian immigrants to American civilization will also be considered. (General Studies—Level II, Historical)

HIS 1530-3 **Sports in America (3 + 0)**
Sports in America traces the history of modern sports from the 19th century to the present. This course explores how American institutions and traditions have shaped sports and how American expectations of sports have evolved over 200 years.

HIS 1650-3
(WMS 1650) **Women in U.S. History (3 + 0)**
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
Emphasizes women's changing roles in American history from 1607 to the present. The course covers the nature of women's work and their participation in the family, church, and reform movements in the colonial and Republican periods, and the 19th and 20th centuries. We witness the emergence of the modern woman in the 20th century, as well as the re-emergence of the women's movement. The course stresses both the changes and the continuities over the last 300 years. Credit will be granted for only one prefix: HIS or WMS. (General Studies—Level II, Historical)

HIS 1910-3
(CHS 1010) **History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)**
Prerequisite: 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)

HIS 1920-3
(CHS 1020) **History of the Chicana/o in the Southwest: 1810 to Present (3 + 0)**
Prerequisite: 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)

HIS 1940-3
(AAS 1130) **Survey of African History (3 + 0)**
Prerequisite: minimum performance standard scores on reading and writing preassessment placement tests
This course surveys the major developments on the African continent from ancient times to the modern period. Focuses on political and cultural developments in African civilizations from ancient Egypt to the contemporary period. Credit will be granted for only one prefix: HIS or AAS. (General Studies—Level II, Historical; Multicultural)

HIS 2010-3 **Contemporary World History (3 + 0)**
Prerequisites: satisfaction of ENG 1010 and Level I Communication course requirements
This course explores the major developments in the 20th century emphasizing political, social and economic experiences. The issues facing the Third World are examined closely. (General Studies—Level II, Historical)

HIS 2650-3
(WMS 2650) **Women of the West (3 + 0)**
This course examines women who inhabited the American frontiers from pre-Columbian times through the 20th century. The lives and attitudes of Native American, Hispanic, African American, and native-born and European immigrant women are emphasized. Differences between images and the reality of women's lives are highlighted. Credit will be granted for only one prefix: HIS or WMS.

HIS 2820-3
(CHS 2120) **Mexico: Independence to Revolution, 1810-1910 (3 + 0)**
Prerequisite: HIS 1910/CHS 1010
This course describes the social, political, cultural and economic development of the Mexican people during the 19th century. Also provides an analysis of how race, class, gender, regionalism and foreign intervention influenced Mexican history throughout the era. Credit will be granted for only one prefix: HIS or CHS.

HIS 2830-3
(CHS 2130) **Mexico: Revolution to the Present, 1910-1990s (3 + 0)**
Prerequisites: CHS 1010/HIS 1910 and CHS 2120/HIS 2820 or permission of instructor
This course traces the social, political, cultural and economic effects of the 1910 Revolution on 20th-century Mexico. It also describes how the United States government and private citizens have influenced Mexico's history. Credit will be granted for only one prefix: CHS or HIS.
.

HIS 2950-3
(AAS 2130) **West African Civilizations (3 + 0)**
Prerequisites: satisfaction of ENG 1010 and Level I Communication course requirements
This course surveys the history and cultures of West Africa from A.D. 1000 to the modern period. The course will focus on political, cultural and economic developments among West African peoples and states. Credit will be granted for only one prefix: HIS or AAS. (General Studies—Level II, Historical; Multicultural)

HIS 3010-3 **History of Denver (3 + 0)**
Course covers Denver from its Native American prehistory to the mid-20th century. Ethnic groups, political leaders, and the power elite are treated as are the major events in the city's history.

HIS 3023-3
(AAS 3000) **History of Egypt (3 + 0)**
Prerequisite: sophomore standing or permission of instructor
This course explores and examines major developments in the history of Egypt from the Pharaonic period to the modern era. Political, religious, economic and cultural elements are highlighted. Credit will be granted for only one prefix: HIS or AAS.

HIS 3031-3 **Ancient Greece (3 + 0)**
Prerequisite: HIS 1010 or permission of instructor
The course will treat the history of the Greek world from late Neolithic period to the rise of Macedonia. The Minoan and Mycenaean civilizations, the growth of the city–states such as Sparta and the development of democratic institutions at Athens, the Peloponnesian Wars and the rise of the kingdom of Macedonia will be covered.

HIS 3060-3 Rome and the Caesars (3 + 0)
Prerequisites: HIS 1010 or permission of instructor and satisfaction of all Level I General Studies course requirements
Rome and the Caesars is an upper-division survey course that concentrates on the history of Rome from its founding in the eighth century B.C.E. to its demise in the sixth century A.D. Roman history presents a unique study in the rise and decline of a civilization, and this course analyzes every aspect of that development. (General Studies—Level II, Historical)

HIS 3090-3 Native Americans in American History (3 + 0)
Prerequisite: satisfaction of Level I General Studies course requirements
The purpose of this course is to examine the history of the cultural contact and confrontation between North American indigenous people and Europeans and Africans from Celtic times to the present. The course seeks to integrate ethnohistoric evidence from "traditional" Eurocentric accounts to provide as balanced an account as possible. (General Studies—Level II, Historical; Multicultural)

HIS 3100-3 American West Seminar (3 + 0)
In this seminar students consider various topics relating to the American frontier. Primary emphasis will be on the 19th- and 20th-century Trans-Mississippi West.

HIS 3110-3 Colorado History II (3 + 0)
Course concentrates on 20th-century Colorado's political, social and economic history. The progressive movement, the Ku Klux Klan's rise to power, the depression years and post-World War II Colorado are covered in depth.

HIS 3120-3 Medieval History (3 + 0)
Prerequisite: satisfaction of Level I General Studies course requirements
Course covers the history and culture of Europe from circa 325 to 1300, emphasizing such themes as the transition from ancient to medieval civilization, Latin Christianity, the Carolingian empire, the papacy and the development of feudal society. (General Studies—Level II, Historical)

HIS 3140-3 Renaissance and Reformation (3 + 0)
Prerequisite: satisfaction of Level I General Studies course requirements
Studies the political, religious, cultural and economic aspects of the Renaissance, a period of decline in the 14th century and revival in the 15th century. The religious upheaval of the 16th century, with its roots in the Renaissance, and its immediate and long-range effects on Western civilization are examined in detail. (General Studies—Level II, Historical)

HIS 3200-3 Early Modern Europe, 1648-1789 (3 + 0)
This course covers European history from 1648 to 1789 including political, cultural and religious aspects of that history.

HIS 3210-3 French Revolution and Napoleon 1715–1815 (3 + 0)
After studying causes, students examine the French Revolution in detail. Also considered are the effects of the Revolution and Napoleon upon France and the major countries of Europe.

HIS 3230-3 Nineteenth Century Europe (3 + 0)
A chronological survey of the century of progress culminating in the tragic climax of the outbreak of World War I. Such topics as the industrial revolution, the consolidation of the nation-state, rise of the masses, liberalism, socialism, nationalism and imperialism are covered.

HIS 3240-3 Imperial Russia (3 + 0)
This class will examine the changes in Russian history from Peter the Great to Nicholas II, the last tsar of Russia. It will detail the rise of imperial Russian power and outline the social changes in Russian society that eventually led to the destruction of Imperial Russia and the birth of the Soviet Union.

HIS 3241-3 Russia since 1917 (3 + 0)
This class will examine the changes in Russian history from the Russian and Bolshevik revolutions of 1917 to the fall of the Soviet Union in 1991 and current events in Russia. It will detail the transformation of the Russian Empire into the Soviet Union and outline the social and political changes that contributed to the rise and fall of the Soviet Union.

HIS 3250-3 World War I (3 + 0)
Prerequisite: junior or senior standing
This course provides an in-depth examination of the origins, course, consequences and outcomes of World War I.

HIS 3260-3 **Twentieth Century Europe, 1914–2000 (3 + 0)**
This course covers Europe during and after World War I, the period leading up to World War II as well as World War II and its aftermath.

HIS 3270-3 **Issues in European History: Variable Topics (3 + 0)**
An examination of various problems in European history. The topics will vary to accommodate student needs and interests. May be repeated for credit as the course title changes.

HIS 3290-3 **Nazi Germany (3 + 0)**
Prerequisite: HIS 1020 or permission of instructor
This detailed survey examines the origins of Hitler's regime within the context of 20th century Germany and Nazi domestic and foreign policies to 1939. World War II, given thorough coverage, is viewed as the logical culmination of Hitler's ideology and his ability to use the German nation as a means to achieve his murderous ends.

HIS 3310-3 **England to 1714 (3 + 0)**
Prerequisites: HIS 1010 or permission of instructor and satisfaction of Level I General Studies course requirements
This course covers the institutional and cultural development of the English nation from the earliest times to the death of Queen Anne. Particular attention will be focused on the legal and constitutional developments during the latter part of this period that have made the English experience so unique. (General Studies—Level II, Historical)

HIS 3320-3 **England since 1714 (3 + 0)**
Prerequisites: HIS 1020 or permission of instructor and satisfaction of Level I General Studies course requirements
This course analyzes the social, political and economic developments that produced modern Great Britain, the British Empire, and the final retreat from power after World War I. (General Studies—Level II, Historical)

HIS 3340-3 **Ireland and the Irish (3 + 0)**
This is a survey course in Irish history and culture from the earliest period of Celtic civilization up to the contemporary period. It explores the various developments in Irish history over the past 3,000 years and attempts to identify those trends that were uniquely Irish and those that were a part of the overall evolution of European civilization.

HIS 3350-3 **Countries/Regions of the World: Variable Topics (3 + 0)**
This course examines various historical issues and problems of relationships among members of the world community. Specific countries or regions to be emphasized will vary according to student needs and interests. This course may be repeated for credit under different topics.

HIS 3360-3
(WMS 3360) **Women in European History (3 + 0)**
Prerequisites: HIS 1010, 1020, or permission of instructor
This course provides an historical analysis of the role and contribution made by women in the development of Western Civilization from Neolithic times to the present. Credit will be granted for only one prefix: HIS or WMS.

HIS 3370-3 **The American Presidency (3 + 0)**
Prerequisite: sophomore standing or above
This course surveys the history and structure of the American presidency as an institution and probes the lives and administrations of individual presidents. Significant political themes and topics pertaining to the White House's historical political climate are likewise explored.

HIS 3380-3 **Nixon and the Kennedys (3 + 0)**
This course employs a life-and-times approach to the study of Richard Nixon, the members of the Kennedy family (with emphasis on John and Robert) and the historical events that shaped the lives of Nixon and the Kennedys or were influenced by their lives. The larger story of modern American history is woven around the lives of these individuals who have played a prominent part in that history. Family backgrounds, childhoods and public careers are all considered in the biographical aspects of this course.

HIS 3400-1–3 **Biography as History: Variable Topics (1–3 + 0)**
An in-depth examination of the lives of individuals who personify a major historical issue or theme. May be repeated for credit as the course title changes.

HIS 3410-3 **American Colonial History (3 + 0)**
This course focuses on a rich variety of themes in colonial American history ranging from exploration, planting colonies, political growth, social mobility, environmental and agricultural history to 1763.

HIS 3430-3 **American Revolution and Early National Period, 1763–1848 (3 + 0)**
This course examines politics, society, and economics during the Revolutionary and Early National periods. Major topics will include American society on the eve of the Revolution, the causes of the Revolution, military and diplomatic aspects of the eras, the development of political parties, reform movements, the changing status of Native and African Americans, and the position of women.

HIS 3520-3 **Civil War and Reconstruction (3 + 0)**
This course traces the background of the Civil War, the war itself, and the aftermath of the war. It also familiarizes students with Civil War and Reconstruction historiography.

HIS 3530-3 **American Baseball History (3 + 0)**
The purpose of this course is to examine American baseball as a cultural reflection and catalyst in American life since the 1840s. Drawing on primary and secondary sources, as well as guest lectures, the course will illustrate the place of the sport within American culture.

HIS 3540-3 **Emergence of Modern U.S., 1877–1920 (3 + 0)**
Within its time frame, this course traces the rise of industrialism; immigration and its impact; the urbanization of the nation; the westward movement; the organization of laborers and farmers; the growth of imperialism; and the reform spirit with attendant social, political, and constitutional adjustments. It also treats World War I and the War's immediate aftermath.

HIS 3570-3
(AAS 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. The course focuses on the themes and subjects that reveal the complexities of the black experience. Credit will be granted for only one prefix: HIS or AAS.

HIS 3580-3
(AAS 3580) **African American History II (3 + 0)**
Prerequisites: HIS 1210, HIS 1220 or permission of instructor
Continues to study the role of the people of African heritage in the U.S. from 1876 to the present. Emphasis is placed on understanding the black experience: family and church, sex and racism, politics, economics, education, criminal justice, black nationalism and the permanent contradiction between America's ideals and its practices. Credit will be granted for only one prefix: HIS or AAS.

HIS 3590-3 **American Immigration History (3 + 0)**
Prerequisite: satisfaction of Level I General Studies course requirements
This course concentrates on the movement of people into the United States. It considers the factors which cause them to migrate, their adjustment to their new homes, and the interaction between them and other Americans. (General Studies—Level II, Historical; Multicultural)

HIS 3610-3 **Preservation/Public History (3 + 0)**
Traces the development of historic preservation in the U.S. and examines the role of the public historian in managing cultural resources.

HIS 3630-3 **Historic Western Places (1 + 5)**
The course, which includes site tours, covers the establishment and development of significant 19th century towns and military establishments in Colorado and adjacent states.

HIS 3640-3 **U.S. World War I through World War II (3 + 0)**
This course covers the United States between 1912 and 1945 including politics, foreign policy, society, technology, economics and culture. Among topics covered are the U.S. in World Wars I and II, culture, society and politics in the 1920's, the Great Depression and the New Deal.

HIS 3660-3 **Recent U.S. 1945-1990s (3 + 0)**
Prerequisite: satisfaction of all Level I General Studies course requirements
This course treats the United States from 1945 to the 1990s concentrating on the Cold War, the civil rights movement, the decline of political parties, and the nature of the centralized state. (General Studies—Level II, Social Sciences)

HIS 3670-3 **U.S. Foreign Relations: Variable Topics (3 + 0)**
An examination of various issues, problems, or areas in American foreign policy from colonial origins to the recent past. The topics will vary to accommodate student needs and interests. This course may be repeated for credit under different topics. (General Studies—Level II, Historical)

HIS 3680-3 **The Court in Crisis (3 + 0)**
This course will examine the major constitutional developments in the United States from World War I to the present. Special attention will be devoted to the Supreme Court's role in advancing civil rights and civil liberties.

HIS 3689-3
(HON 3689) **The History of the First Amendment (3 + 0)**
This course is divided into two parts that examine how Americans have thought about freedom of expression and freedom of religion from the seventeenth century to the present. Important documents, pivotal Supreme Court cases, and major controversies are carefully explored. Credit will be granted for only one prefix: HIS or HON.

HIS 3690-3 **American Military History (3 + 0)**
This is a study of American military history from the wars of the colonial period through Vietnam. It considers battles, strategy and organization.

HIS 3700-3 **Modern China (3 + 0)**
Prerequisite: satisfaction of Level I General Studies course requirements
This course covers the history of China since 1800, with emphasis on the historical continuity and changes in its political, social, cultural and economic development. The course will also discuss chronologically the traditional order in China, its breakdown both by internal and external challenges, the Chinese people's "struggle" to adjust to the new world imposed by foreign powers, and their effort to rebuild their country through revolution. (General Studies—Level II, Historical)

HIS 3740-3 **Modern Japan (3 + 0)**
Prerequisite: satisfaction of Level I General Studies course requirements
This course covers the history of Japan since the mid-1850s, with emphasis on the political, social and economic development. The course will also discuss the traditional order in Japan, its modification over time, the Japanese "struggle" to adjust to the new world order imposed by foreign powers, its defeat in World War II and its effort to rebuild. (General Studies—Level II, Historical)

HIS 3760-3 **Modern Middle East (3 + 0)**
Course explores the dynamic history of this volatile region with special emphasis on the post-World War II period. (General Studies—Level II, Historical)

HIS 3770-3 **World of Islam**
This course examines major developments associated with the origin, expansion, and evolution of Islam and Islamic civilization from the seventh century to the present. (General Studies—Level II, Historical)

HIS 3790-3 **The United States and Vietnam (3 + 0)**
This course traces the 1960s conflict in Vietnam to its roots in 19th century colonialism, conflicting interests in World War II and the demise of French power in the 1950s. It details U.S. involvement and U.S. strategy from the 1950s until the defeat of South Vietnam in 1975. Attention is also paid to the U.S. home front and to the effects of the conflict.

HIS 3810-3 **Latin America : Republics (3 + 0)**
Prerequisite: satisfaction of all Level I General Studies course requirements
A selective analysis of the problems and solutions of the Latin American republics in their attempts to construct viable nation states. Emphasis will be placed on the liberalism of the 19th century and the revolutionary experiences of the 20th century. (General Studies—Level II, Historical)

HIS 3820-3 **United States and Latin America (3 + 0)**
Prerequisite: HIS 1210 or HIS 1220 or permission of instructor
This course covers the historical development of relations between the U.S. and its hemispheric neighbors, from the original independence movements to the present.

HIS 3830-3
(CHS 3010) **The Mexican Revolution (3 + 0)**
Prerequisite: CHS 1000 or permission of instructor
This course traces the social, political and economic forces that contributed to the Mexican Revolution (1910-1920). Furthermore, it provides a critical analysis of how leaders, women, the Mexican masses and the United States influenced revolutionary events. Credit will be granted for only one prefix: HIS or CHS.

HIS 3840-3 **Topics in Popular Culture: Variable Topics (3 + 0)**
This course will examine major trends in popular culture. Topics include American lifestyles, beliefs and customs. This course may be repeated for credit under different topics.

HIS 3850-3 **American Social History (3 + 0)**
This course focuses on significant events, issues, and themes in American social, cultural and intellectual history that have influenced the development of American society.

HIS 3870-3 **History of U.S. Sexual Attitudes (3 + 0)**
This course covers the wide-ranging history of American sexuality practices, beliefs and attitudes from the colonial period to the present and encourages students to place their attitudes within this historical framework.

HIS 3880-3 **American Environmental History (3 + 0)**
This course will examine the interactions between humans and plants and animals in North America from pre-Columbian times to the present, as well as U.S. attitudes toward landscapes, cities and natural phenomena.

HIS 3890-1–2 **Readings in History: Variable Topics (1–2 + 0)**
In this course, a student will read extensively in a selected area. Critiques of the works read will be submitted to the professor directing the reading. May be repeated for credit as the title changes.

HIS 3980-3 **Cooperative Education: History (3 + 0)**
Prerequisite: placement in history internship with Cooperative Education Program
Provides work experience in various areas of public history. Includes student research and special projects for federal and state agencies, preservation organizations, archives and museums while serving as interns.

HIS 4000-1 **Research Techniques: Variable Topics (1 + 0)**
Introduces students to specialized research techniques, including research in U.S. public documents, state and municipal archives and historical research methods. May be repeated for credit as title changes.

HIS 4010-3 **Methods of Teaching Social Science: Secondary School (3 + 0)**
Prerequisite: junior or senior standing (should ideally be taken the semester before student teaching is done)
This course explores the relationship between the social sciences, examines curricular approaches and current teaching methodologies, and discusses philosophies of the social sciences in the context of the secondary school and their practical applications for teaching.

HIS 4110-3
(HON 3850) **American Culture I (3 + 0)**
Prerequisites: satisfaction of all Level I General Studies course requirements and permission of MSCD Honors Program director or instructor
This course critically examines the variety of interdisciplinary and multicultural perspectives in the study of American culture. Credit will be granted for only one prefix: HIS or HON. (General Studies—Level II, Historical; Multicultural)

HIS 4120-3
(HON 3860) **American Culture II (3 + 0)**
Prerequisites: HIS 1210, 1220, or their equivalent, HON 3850, permission of MSCD Honors Program director, and satisfaction of all Level I General Studies course requirements
This course applies theoretical perspectives to contemporary works representative of American life and thought. Credit will be granted for only one prefix: HIS or HON. (General Studies—Level II, Historical)

HIS 4200-3 **Studies in Original Sources: Variable Topics (3 + 0)**
Prerequisite: instructor approval
Students will study primary documents from particular historical periods, often in languages other than English. Historical commentaries will illuminate the issues discussed in the texts. This course may be repeated three times for credit, as the course title changes, for a maximum of 12 credit hours.

HIS 4650-3 **World War II 1939–1948 (3 + 0)**
A detailed examination of World War II and the early years of the Cold War. Emphasis is placed on the war in Europe, the impact of Nazi rule, diplomacy among the wartime allies, the collapse of wartime cooperation, the advent of the Cold War, as well as containment.

HIS 4820-3 **Senior Seminar (3 + 0)**
Prerequisites: HIS 1010, HIS 1020, HIS 1210, HIS 1220; at least nine upper-division history hours; satisfaction of all Level I and Level II General Studies course requirements; senior standing
This course covers historiography, research and writing techniques and philosophies of history. This is a capstone course and is required of history majors. (Senior Experience)

HIS 4860-3
(WMS 4860) History of Feminism and Women's Rights (3 + 0)
Prerequisite: WMS 1001 or either HIS 1210 or HIS/WMS 1650, or permission of instructor
The purpose of this course is to examine the history of American feminism from the Age of the Revolution to the present. Through the use of primary and secondary sources, the philosophies and strategies of women's rights activists and organizations will be examined. Among the special topics to be considered are the conditions and intellectual currents in society that facilitated the growth of American feminism, the achievements of the women's rights movement, the forces that opposed women's rights, and the issues for debate within the feminist movements. Credit will be granted for only one prefix: HIS or WMS.

Of the above courses, the following may be repeated if the topics are changed: HIS 3270, HIS 3350, HIS 3400, HIS 3670, HIS 3840, HIS 3890, HIS 3980, HIS 4000, and HIS 4200.

HOSPITALITY, MEETING, TRAVEL ADMINISTRATION

HMT 1030-3 Principles of Meeting and Travel Administration (3 + 0)
This is an introductory course in meeting and travel operations. The course introduces the student to the history and concepts of the meeting and travel industries. The student is provided an understanding of the operational concepts, vocabulary, career opportunities, and interrelationships between the two professions. Various career opportunities available across the meeting and travel industries and how they might relate to other hospitality professions will be examined.

HMT 1050-3 Principles of Hotel and Restaurant Administration (3 + 0)
This is an introductory course in hotel and restaurant operations. The course introduces the student to the history and concepts of the hotel and restaurant industries. The student is provided an understanding of the operational concepts, vocabulary, career opportunities, and interrelationships between the two professions. Various career opportunities available across the hotel and restaurant industries and how they might relate to other hospitality professions will be examined.

HMT 1600-3 Food Production, Service, Sanitation, and Safety (2 +2)
This course covers the fundamental principles of food production, service, sanitation, and safety of the food service industry. Basic production and service methods will be examined by students to include proper use of food equipment and tools, menu planning, nutrition and health, measurements and recipe conversions, yield tests, food costing and controls, and menu pricing. Food-borne illnesses, standards enforced by regulatory agencies, and measures for preventing food-borne illnesses will be studied. The Hazard Analysis Critical Control Point (HACCP) food safety system is described and then practiced in a field experience project.

HMT 1610-4 Kitchen Procedures and Production I (3 + 2)
Prerequisite: HMT 1600 or permission of instructor
This comprehensive introduction to the field of professional food preparation and cooking includes the proper use of quantity food equipment and tools, menu planning, nutrition and health, measurements and recipe conversions, yield tests, food costing and controls, menu pricing, cooking principles and methods and the use of kitchen staples.

HMT 1620-4 Kitchen Procedures and Production II (3 + 2)
Prerequisite: HMT 1610
A continuation of HMT 1610. Course covers application of principles from HMT 1610 in the preparation and service of eggs and dairy products, meats, poultry, game, fish and shellfish, vegetables, potatoes and starches, salads and dressings. Principles of the bakeshop, breads, pastries, international flavor principles, plate presentations, hors d'oeuvre, appetizers, and breakfast/brunch are also covered.

HMT 1810-3 Ticketing and Reservations Procedures (3 + 0)
This course is designed to give the student a basic working knowledge of manual and automated reservations and ticketing procedures to include airlines, car rentals, and hotel reservations. Students will examine the North American Official Airline Guides (OAG). Computer reservation and ticketing formats are learned from the United Airlines Apollo Computer System. Students will examine and complete the ARC report; the travel agency's accounting system that interfaces with the airlines.

HMT 1850-3 Multicultural/Multinational Cultural Adjustment/Readjustment (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement test
This course will introduce students to both multicultural and multinational employment opportunities. Concentration will be on job opportunities in other countries and employment opportunities for jobs based in the U.S. with travel to other countries. The unique opportunities for those of color will be emphasized. Specific learning modules will be included for those who are Black, of Hispanic origin, and Native American. (General Studies—Level II, Social Sciences; Multicultural)

HMT 2000-3 Internship (0 + 9)
Prerequisite: formal written approval of the HMTA program internship supervisor
A beginning, on-the-job, learning experience in the HMTA student's area of emphasis. A cooperating agency or industry develops a practical as well as academic program of learning and work that, when approved by the HMTA internship supervisor or the department chair, becomes the student's course outline. Students are expected to meet employee standards of the cooperating agency as well as the academic standards of the HMTA program.

HMT 2500-3 Applied Hotel/Restaurant Operations (3 + 0)
Prerequisite: the student must anticipate being or be currently employed in the industry, or be a student in the HMTA program, or have the instructor's permission.
The student learns management principles as applied in hotel and restaurant operations. Guest lecturers from the hotel and restaurant industries take students through on-site visits of various sites. Classes meet in hotels and restaurants in the Denver metro area and also in mountain resorts.

HMT 2760-3 Meeting Administration I (3 + 0)
Prerequisite: basic computer literacy in the use of Excel, internet applications and Word
Meeting Administration I is a course for majors or for those who believe they may be called on to plan a meeting for their employer or organization. Students will study the basics of budgeting, site selection, exhibits, transportation, food and beverage functions, publicity, and audiovisuals for meetings. Students examine meeting and events management systems software and internet applications through various online instructions.

HMT 2840-3 Tour Planning (3 + 0)
As an introduction to tour operations, this course provides students with both knowledge and skills in tour development. Regional, national and international tours will be studied and planned by students through group work. Students develop their own tour to include planning tour organization, tour marketing, budgeting, vendor contracts, and cost negotiations through a series of tour planning group projects. Students learn geo-political challenges to international travel using air and rail travel as examples.

HMT 2860-3 Sustainable Tourism (3 + 0)
Students in this course will study the relationship between tourism activities, socio-cultural issues, ecological systems, political agendas, economic opportunities, and resource utilization. Students should gain a better understanding of processes of planning, developing, and implementing tourism.

HMT 3510-3 Hotel Front Office Administration and Operations (3 + 0)
Prerequisite: HMT 1050 or permission of instructor
This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resource management. Front office procedures and management are placed within the context of the overall operation of a hotel.

HMT 3520-3 Hotel Housekeeping Administration and Operations (3 + 0)
Prerequisite: HMT 3510
This course presents a systematic approach to managing housekeeping operations in the hospitality industry. Students will study the management of direct housekeeping day-to-day operations from the big picture perspective down to technical details. Interrelation of hotel departments and maximum guest service and profitability will be examined.

HMT 3570-3 Hospitality Marketing (3 + 0)
Prerequisite: junior or senior standing or permission of instructor
This course provides applications of principles of marketing and advertising to the specific needs of the hospitality industry. Students will submit a major paper based on field work in their area of concentration analyzing a particular marketing problem.

HMT 3580-3 Hospitality Tourism Law (3 + 0)
Prerequisites: HMT 1030, HMT 1050, MGT 2210 or permission of instructor
This course provides an overview of the legal fundamentals that apply to operations and management in the hospitality and tourism industries with an emphasis on preventive management practices. Legal procedures, Civil Rights, contract law, negligence, relationships with guests, and specialized liabilities related to food and alcohol service, travel agents, airlines, and rental cars are covered, as well as contemporary legal issues in hospitality management related to employment practices, internal and market regulation, and franchising.

HMT 3590-3 Hospitality Administration for Profit (3 + 0)
Prerequisites: ACC 2010, junior or senior standing or permission of instructor
This course concentrates on the analysis and interpretation of hotel, meeting, restaurant, and travel industry accounting procedures and financial statements. Balance sheets, income statements, and cash flow statements will be covered. Principles of budgeting, forecasting, pricing techniques, financial ratios and financial management case problems explicit to the hotel, meeting, restaurant, and travel industries will be studied.

HMT 3600-3 Food and Beverage Cost Controls (3 + 0)
Prerequisite: HMT 1050 or permission of instructor
This course gives students the knowledge to function as a manager of food and beverage operations in the hospitality industry. Procurement, preparation and service to final accountability of sales and costs are covered.

HMT 3610-3 Enology: The Study of Wine (3 + 0)
Prerequisite: a minimum age of 21 years
This course is designed for the student who wishes to learn the basics of wine knowledge for personal gratification, as well as to serve the student who expects to have a professional interest in the selection or service of wine. Viticulture, vinification, service, and critical appraisal of wines of the major wine regions of the world will be covered.

HMT 3640-3 (NUT 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 value 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: HMT or NUT.

HMT 3650-3 Hospitality Property Management (3 + 0)
Prerequisite: HMT 3510 or HMT 3660 or permission of instructor
An examination of the fundamentals of blueprint reading, building, construction safety and utility requirements and mechanical systems as they relate to the hotel/restaurant business.

HMT 3660-3 The Restaurant from Concept to Operation (3 + 0)
Prerequisite: permission of instructor
This course provides the student with the major elements of a successful concept package and business plan for a proposed or existing restaurant or food service operation. Criteria for site selection, market analysis, location factors and menu consistent with the concept are covered. Forecasting, budgeting and controlling sales and costs, financing considerations and legal and tax matters are also included in a semester project for a concept of the student's own choosing.

HMT 3670-3 Food Service Purchasing (3 + 0)
Prerequisite: permission of instructor
This course provides an overview of purchasing in the food service industry and essentials of an effective selection and procurement program. Purchase specifications, vendor selection, inventory systems, ordering, receiving and storage procedures and criteria for selection of major food and non-food item categories are covered as well as the purchase of services and durable goods.

HMT 3680-3 Beer and Spirits (2 + 2)
Prerequisite: Minimum age of 21 years
This course provides an overview of responsible beverage alcohol service and includes the principles of production, storage, and service of beers and spirits. Major categories of beer will be evaluated to include the practical brewing and sensory analysis of beer styles. The classic spirits of the world, their history, and their modern production methods also will be reviewed. Students will demonstrate and practice mixology, training, and evaluation in bartending skills through the classroom laboratory. Students will be evaluated through the National Restaurant Association Bar-Code Responsible Beverage Alcohol Service Certification Examination.

HMT 3750-3 Hospitality Promotion Materials: Analysis and Design (3 + 0)
Focus is on the creative conceptualization and technical production of complex packages of printed materials for meetings, tours, hotels, and restaurants as aids in promotion and marketing. Students learn process theory and applications.

HMT 3760-3 Meeting Administration II (2 + 2)
Prerequisites: HMT 2760 and computer literacy
A professionally oriented course for those preparing for a career as an exposition manager or association meeting planner. Stresses elements of exposition development and management and adult learning theory as applied in association and meeting agendas. A total exposition plan is required.

HMT 3860-3 Incentive Travel (3 + 0)
Prerequisites: HMT 1810 or permission of instructor
Students in this course are introduced to incentive travel and will obtain an overview of the incentive travel industry. Business incentive programs will be studied and each student will prepare a mock incentive travel program for a Colorado company as a group project. Students may expect to spend additional hours undertaking out-of-class projects.

HMT 3870-3 Cruise Development, Marketing and Sales (3 + 0)
Prerequisites: HMT 1030, 1050, 2860 or permission of instructor
A course focusing on the cruise product, cruise development, marketing cruises, and cruise point-of-sale techniques. Student learns cruise conferences, markets, cruise sales tools, cruise reservations and ticketing processes, and group cruise sales techniques; students learn cruise sales through list selection, individual and group telemarketing, and individual and group sales activities. A guided individual research project will also be required.

HMT 3890-3 Cases in Corporate Travel Management (3 + 0)
Prerequisites: HMTA major with junior or senior standing or permission of instructor
Students review and study trade publications specific to corporate travel management. Corporate travel industry situations and case scenarios related to major corporate travel management problems will be explored in depth.

HMT 4000-3 Internship II (0 + 9)
Prerequisite: HMT 2000 or approved equivalent learning experience
An advanced, on-the-job, administrative learning experience in the emphasis areas of the HMTA major. An approved plan from a cooperating agency requiring both work and academic learning serves as the course outline. Students meet all requirements as for HMT 2000 but on a more rigorous, advanced and administrative level.

HMT 4010-1 Internship III (0 + 3)
Prerequisites: HMT 4000 and/or approved equivalent learning experience
A supplementary apprenticeship providing an in-depth learning experience in a discrete portion of the student's HMTA area of emphasis, either not covered or only surveyed in previous internships or job experience.

HMT 4040-3 Senior Hospitality Research Experience (3 + 0)
Prerequisites: senior standing, 12 hours in major concentration, MTH 1210, senior-level writing ability, and satisfaction of all Level I and Level II General Studies course requirements
This course is designed to provide the approaches and techniques necessary for senior students to analyze and synthesize needs, create and develop a major research project, and effectively interpret results and their application to their major concentration area. Students' learned expertise will be appraised through oral and/or written communications. (Senior Experience)

HMT 4500-3 Hospitality Sales (2 + 2)
Prerequisite: HMT 3570 or MKT 3000
Both inside and outside retail sales in the hospitality industry are addressed in a typical hospitality sales development process. Moving from individual to group sales, the course then reviews specialized hospitality industry sales jobs including travel agency outside sales, convention sales, association meeting sales and various technical hotel sales positions.

HMT 4590-3 Seminar in Hotel Administration: Variable Topics (3 + 0)
Prerequisites: HMTA major, junior or senior standing, or permission of instructor
The course considers various problems, subjects, and trends related to changing environments and events across the hotel and restaurant industries. Subjects related to career as well as personal development may also be studied. This course may be repeated under different topics three times for a maximum of nine total credits earned.

HMT 4610-3 Advanced Study of Wine (2 + 2)
Prerequisites: Minimum age of 21, and HMT 3610 or permission of instructor
This course provides an advanced study of wine. Students continue their practical evaluation of wines and begin to distinguish wines in blind sensory analysis sessions. Tours of local wineries provide opportunities to examine and inspect the production methods of various styles of wine. Practical in-restaurant service techniques will be appraised as well as critical reviews of wine lists and food and wine pairings. A gourmet dinner service will provide a practical application for relating wine and food pairings and service skills.

HMT 4640-3 Hospitality Customer Service (3 + 0)
Prerequisite: junior or senior standing
This course will speak to the needs of the increasing global nature of the hospitality industry to include aspects of interpersonal, intercultural and nonverbal components of service to the customer. Students will examine the cycle of service, critical points of service, various customer service systems, methods used to evaluate customer service systems and effective training and development for delivery of successful customer service.

HMT 4650-3 Hospitality Employee Resource Development (3 + 0)
Prerequisite: HMT 3670, or HMT 3520, or permission of instructor
Course addresses specific challenges to personnel administration for the hospitality industry. Subjects include recruitment, training, motivation, morale, personnel administration tools, personal organization and supervisory skills for organizational productivity.

HMT 4660-3 Training and Development in Hospitality (3 + 0)
Prerequisites: junior or senior standing, HMT 4650, a minimum of 20 hours of HMT courses and either HMT 3520 or HMT 3670
A continuation of HMT 4650, which is designed to build upon the knowledge and concepts learned in relation to employee resource development. Course includes group dynamics and problem solving combined with the writing and training of excellence standards.

HMT 4730-3 Principles of Negotiation (3 + 0)
Prerequisite: permission of instructor
Basic principles of individual and team negotiation as applied to industry are covered. Emphasis is placed on developing aspiration levels and fall-back positions, strategies and tactics of accomplishing the levels and thorough preparation for the negotiation. Students participate in two negotiating situations.

HMT 4790-3 Seminar in Meeting Administration: Variable Topics (3 + 0)
Prerequisite: junior or senior standing or permission of instructor
The course considers various problems, subjects, and trends as related to changing events across the meetings and convention industry. Subjects related to career as well as personal development may also be studied. A major paper is required. This course may be repeated under different topics three times for a maximum of nine total credits earned.

HMT 4810-4 Tour Management (3 + 2)
Prerequisites: junior or senior standing, HMT 2840, or permission of instructor
The concepts of professional and ethical tour development are taught from a destination development and from a group organizational interest point of view. Tour administration is taught from accounting, marketing, organization, and resource development points of view. Appropriate follow-up is stressed. Students plan their own tours and select one weekend tour, which all students take.

HMT 4830-3 Corporate Travel Management (3 + 0)
Prerequisites: HMT 1810, junior or senior standing or permission of instructor
Corporate travel management provides students with an overview of the job held by the corporate executive in charge of travel. Corporate travel department organization, job duties, and job requirements will be examined. This course provides an education in the development of corporate travel policies, request for proposals, and vendor relations.

HMT 4860-3 Security & Loss Prevention for the Hospitality Industry (3 + 0)
Prerequisites: Senior standing in HMTA, and HMT 3580 or permission of instructor
This is a senior level course in hospitality industry security, loss prevention, safety, and risk administration as related to areas of hotel, restaurant, meeting, and travel industry operations. Legal concepts specific to industry operations will be applied in detail through case studies, role playing, and site visits. Students will conduct a risk assessment survey and compose a loss prevention administration plan.

HMT 4890-3 Seminar in Travel Administration: Variable Topics (3 + 0)
Prerequisite: HMT 1810, junior or senior standing or permission of instructor
This course considers various problems, subjects, and trends as related to changing events across the travel and tourism industry. Subjects related to career as well as personal development may also be studied. A major paper is required. This course may be repeated under different topics 3 times for a maximum of nine total credits earned.

HONORS

HON 1001-3
(PSY 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. Credit will be granted for only one prefix: HON or PSY. (General Studies—Level II, Social Sciences)

HON 1010-3
(HIS 1010) Western Civilization to 1603 (3 + 0)
Prerequisite: Minimum performance standard scores on reading and writing preassessment placement tests and, for the Honors prefix, acceptance into the Honors Program is required.
A survey of the development of the culture and institutions of Western civilization; the earliest civilizations of the Middle East, the transitions of the classical Mediterranean world, and the syntheses of Western Europe in the Medieval, Renaissance and Reformation periods. Credit will be granted for only one prefix: HIS or HON (General Studies—Level II, Historical) (Guaranteed Transfer–HI1)

HON 1011-3
(PHI 1010) Introduction to Philosophy (3 + 0)
Prerequisite: minimum performance standard scores on the reading and writing preassessment placement tests and for the Honor's prefix, acceptance into the Honor's program
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: HON or PHI. (General Studies—Level II, Arts and Letters)

HON 1020-3
(HIS 1020) Western Civilization since 1603 (3 + 0)
Prerequisite: Minimum performance standard scores on reading and writing preassessment placement tests and, for the Honors prefix, acceptance into the Honors Program is required.
The history and culture of Western civilization from 1603 to the present; the old regime and revolutions; 19th-century nationalism and liberalism, and the crises of the 20th century, and the challenges of the 21st. Credit will be granted for only one prefix: HIS or HON (General Studies—Level II, Historical) (Guaranteed Transfer—HI1)

HON 2750-3 **The Legacy of Arts and Letters I (3 + 0)**
Prerequisites: ENG 1010, the Level I Communication course requirement, permission of the Honors Program director
Studies those works that have had a literary, philosophical and artistic impact on the image of the self, with strong emphasis on works prior to the 19th century. (General Studies—Level II, Arts and Letters)

HON 2760-3 **The Legacy of Arts and Letters II (3 + 0)**
Prerequisites: HON 2750, ENG 1010, the Level I Communication course requirement, and permission of the Honors Program director
A continuation of HON 2750, this course emphasizes modern works that have had a literary, philosophical and artistic impact on the image of the self. (General Studies—Level II, Arts and Letters)

HON 2800-3 **History of Science (3 + 0)**
Prerequisites: MTH 1110; either ENG 1010 or satisfaction of the Level I Communication course requirements; admission to the Honors Program or permission of the Honors Program director
A comprehensive historical account of the rise of science and scientific thought from the Babylonians to the present. Emphasizes great scientists and how they helped change the world. Topics include astronomy, chemistry, physics, mathematics and biology. (General Studies—Level II, Natural Science)

HON 2950-3 **The Art of Critical Thinking (3 + 0)**
Prerequisites: minimum performance standard scores on reading and writing preassessment placement tests, permission of the Honors Program director
This introductory course in critical thinking emphasizes a method of rational investigation called the method of inquiry. Since inquiry includes arguments both inductive and deductive, attention is focused on constructing arguments and evaluating them. Effective communication will be practices. (General Studies—Level I, Communications)

HON 3689-3
(HIS 3689) **The History of the First Amendment (3 + 0)**
This course is divided into two parts that examine how Americans have thought about freedom of expression and freedom of religion from the seventeenth century to the present. Important documents, pivotal Supreme Court cases, and major controversies are carefully explored. Credit will be granted for only one prefix: HON or HIS.

HON 3800-3
(PSC 309K) **Revolutions and Social Change I (3 + 0)**
Prerequisites: one of the following: HIS 1020, SOC 1010, ECO 2010, PSC 1020, or PSY 2410; satisfaction of all Level I General Studies course requirements; permission of the Honors Program director
Examines the phenomenon of revolution. While the multidisciplinary orientation of the course focuses on revolutionary upheavals in the Western and Third World societies, the analytical paradigms explored include sociological, economic, political and historical dimensions. Credit will be granted for only one prefix: HON or PSC. (General Studies—Level II, Social Sciences)

HON 3810-3
(PSC 309D) **Revolutions and Social Change II (3 + 0)**
Prerequisites: HON 3800 and one of the following courses: HIS 1020, SOC 1010, ECO 2010, PSC 1020, or PSY 2410; satisfaction of all Level I General Studies course requirements; permission of the Honors Program director
A continuation of HON 3800. Explores the socioeconomic and political consequences of major revolutions studied in HON 3800 and attempts to explain their impact on contemporary world affairs. Credit will be granted for only one prefix: HON or PSC. (General Studies—Level II, Social Sciences)

HON 3850-3
(HIS 4110) **American Culture I (3 + 0)**
Prerequisites: satisfaction of all Level I General Studies course requirements and permission of MSCD Honors Program director or instructor
This course critically examines the variety of interdisciplinary and multicultural perspectives in the study of American culture. Credit will be granted for only one prefix: HON or HIS. (General Studies—Level II, Historical; Multicultural)

HON 3860-3
(HIS 4120) **American Culture II (3 + 0)**
Prerequisites: HIS 1210, HIS 1220 or their equivalent; HON 3850; permission of the Honors Program director; and satisfaction of all Level I General Studies course requirements
This course applies theoretical perspectives to contemporary works representative of American life and thought. Credit will be granted for only one prefix: HON or HIS. (General Studies—Level II, Historical)

HON 4920-3 **Senior Honors Seminar: Variable Topics (3 + 0)**
Prerequisites: senior standing, permission of the Honors Program director
An intense, interdisciplinary, thematic seminar. Course content varies according to the description of the departments that offer the seminar. HON 4920 is an alternative to HON 4950.

HON 4950-3 **Senior Honors Thesis (3 + 0)**
Prerequisites: senior standing, permission of the Honors Council
Constitutes a Senior Experience, presented as an independent study, in which the student writes an Honors thesis supervised by a faculty member representing the discipline of the topic. HON 4950 is an alternative to HON 4920.

HUMAN PERFORMANCE, SPORT AND LEISURE ACTIVITIES (HPL)

Special Note: No more than four semester hours in human performance and leisure activity (HPL) courses will be counted toward a bachelor's degree for students who are not majoring in Human Performance, Sport and Leisure Studies.

HPL 1000-2 **Human Performance and Leisure Activities: Variable Topics (1 + 2)**
A wide variety of two-credit activity courses designed for the interests of the general student body. These courses do not serve the needs of Human Performance, Sport and Leisure Studies majors. May be repeated for credit as course title changes.

HPL 1010-2 **Swim Level I (1 + 2)**
This course is designed for the nonswimmer and novice swimmer. Instruction and practice in basic water skills to make the student water-safe and "at home" in the aquatic environment.

HPL 1030-2 **Swim Conditioning (1 + 2)**
Prerequisite: knowledge and skill in the basic swimming strokes
This course is designed to improve the student's cardiovascular fitness through lap swimming.

HPL 1040-2 **Water Exercise (1 + 2)**
A water exercise conditioning program designed to improve and maintain fitness by improving aerobic capacity; increasing flexibility and range of movement; toning major muscles and controlling weight. Swimming ability is not required for participation.

HPL 1080-2 **Scuba Pool and Lecture (1 + 2)**
Prerequisites: student must be able to swim a minimum of 200 yards and tread/float for 10 minutes
This course covers basic instruction and skills in both snorkeling and scuba diving. Successful completion of this course will qualify the student for open-water certification dives.

HPL 1090-2 **Scuba Open Water Certification (1 + 2)**
Prerequisite: student must have completed HPL 1080 within last six months
This course covers both basic and advanced instruction and skills for snorkeling and scuba diving. Successful completion of this course will qualify the student for Open Water Diver Certification.

HPL 1130-2 **Ballet Level I (1 + 2)**
This course is designed for adults with minimal or no experience. Basic steps, positions, and movements required in classical ballet will be taught, stressing correct placement based on anatomy and physical laws of motion.

HPL 1150-2 **Ballroom Dance (1 + 2)**
This course provides instruction and practice in ballroom dance with a focus on traditional dances. Dance mixers and ice breakers will also be included in this class.

HPL 1160-2 **Jazz Level I (1 + 2)**
This course is designed to teach fundamental techniques of jazz dance for physical fitness and health, to build endurance, figure control, and strength; to aid the student with movement and introduce them to an exciting dance experience.

HPL 1180-2 **Modern Dance I (1 + 2)**
This course is designed for the student with minimal or no dance experience. A basic movement foundation stressing placement, strength, stretch and coordination will be included to increase physical awareness.

HPL 1210-2 **Improvisation and Choreography (1 + 2)**
This course will explore movement through creative problem solving and is organized into sequences to express a variety of themes.

HPL 1240-2 **Tap Dance I (1 + 2)**
This dance course is designed to provide an introduction to tap dance activities, as well as the physical, social and emotional benefits derived from regular participation in such an activity.

HPL 1330-2 **Golf I (1 + 2)**
This is a course designed for the beginning golfer. The course covers individual skills and rules. Range practice is conducted on the outdoor fields.

HPL 1340-2 **Golf II (1 + 2)**
Prerequisite: HPL 1330 or adequate playing ability
This course is designed for the student with prior experience in golf. The course will include review of fundamentals and advanced skills. Range practice is conducted on the outdoor fields.

HPL 1350-2 **Tennis Level I (1 + 2)**
This course is designed for beginning players who are below 2.5 USTA rating. Skills, strategy and rules at the introductory level are presented.

HPL 1400-2 **Fencing (1 + 2)**
This course is designed to teach the basic fundamentals of beginning fencing.

HPL 1410-2 **Ski, Cross-Country or Snowboard (1 + 2)**
This course is taught at a nearby ski area. Lessons are presented by the area's instructional staff in alpine skiing, cross-country skiing, or snowboarding. Instruction for beginners to advanced students is given.

HPL 1450-2 **Backpacking and Camping (1 + 2)**
This is a course that combines lectures and a weekend backpacking trip where the student will learn where to go, how to dress, the type of equipment needed, how to feed him/herself and others, as well as learning wilderness ethics.

HPL 1660-2 **Tae Kwon Do Level I (1 + 2)**
This course is designed to introduce the beginning student to the Korean martial art of tae kwon do and how it may relate to personal health, physical conditioning and self defense.

HPL 1670-2 **Tae Kwon Do Level II (1 + 2)**
This course will give the intermediate and advanced martial arts student the opportunity to develop and perform their art for their own enjoyment and for the public.

HPL 1750-2 **Weight Training Level I (1 + 2)**
This is a course designed to introduce the student, both male and female, to the proper conditioning programs for personal physical development.

HPL 1760-2 **Weight Training Level II (1 + 2)**
Prerequisite: HPL 1750 or permission of instructor
This is an advanced course for students with some previous skills and knowledge of weight training. It is designed to explore more techniques of lifting, as well as a deeper understanding of muscular hypertrophy.

HPL 1780-2 **Step Aerobics (1 + 2)**
This course is designed for the student with no prior experience in step aerobics. Basic stepping techniques and footwork, muscular endurance, muscular flexibility and muscular strength will be emphasized. Nutrition, injury prevention and basics of aerobic conditioning will be covered in lectures.

HPL 1790-2 **Aerobics (1 + 2)**
This course is designed as an introduction to a lifetime exercise program that can help the student develop cardiovascular endurance, muscular strength and endurance and flexibility. In addition to weekly activity sessions, students will receive basic information regarding healthy lifestyles. Students will be evaluated with both written and physical testing.

HPL 1810-2 **Hip and Thigh Conditioning (1 + 2)**
This course is designed to introduce the students to an exercise program that will develop muscular endurance and muscular strength, as well as flexibility. The course content will also include lectures on nutrition, basic anatomy, physiology, injury prevention and treatment.

HPL 1820-2 **Stretch and Strength (1 + 2)**
This course contains instruction on building strength and stretch, forming long, slender muscles. Proper stretching techniques and positions, along with methods of developing strength are covered. Sports injury prevention is emphasized in this course.

HPL 1830-2 **Walk, Jog, Run (1 + 2)**
This course is designed to introduce the student to the benefits of walking/jogging as a method of aerobic conditioning and how to use these exercises safely while promoting cardiovascular health.

HPL 1840-2 **Hatha Yoga I (1 + 2)**
This course offers students an introduction to the basic methodologies of asana (posture), pranayama (breathing practices) and meditation. The foundation of yoga, as outlined in the Hatha and Raja yoga philosophies, will build the context for the class work.

HPL 1850-2 **Hatha Yoga II (1 + 2)**
Prerequisite: HPL 1840 or permission of instructor
This is an advanced course that deepens the application of pranayama, meditation, bandhas and the mudras in yoga practice. The focus is to deepen the understanding of Classical Yoga and the Yoga Sutras by Pantanjali.

HPL 1870-2 **Stress Management (1 + 2)**
This course is designed to provide the student with an understanding of the elements of stress-induced conditions, as well as provide a means by which students will become capable of effectively relieving stressful conditions.

HPL 1880-2 **Tai Chi Level I (1 + 2)**
This course is designed to introduce the beginning student to the 25 basic movement forms and concepts of Tai Chi, an ancient form of Chinese physical exercise and mental concentration. Tai Chi is a gentle form of exercise that provides practical application to movements in daily life with an emphasis on meditation, strength, flexibility and aerobic training.

HPL 1890-2 **Tai Chi Level II (1 + 2)**
Prerequisite: HPL 1880 or permission of instructor
This course is designed for students already familiar with the content of Tai Chi Level I. Tai Chi Level II completes the 108 movement forms and concepts begun in Tai Chi Level I and covers advanced movements through expanded amplitude, direction and complexity.

HUMAN PERFORMANCE, SPORT AND LEISURE ACTIVITIES (HPS)

HPS 1600-2 **Introduction to Human Performance and Sport (2 + 0)**
This course is intended for HPSL majors and minors. It is designed to orient the prospective professional/teacher to the varied fields of human performance and sport. Course activities include lecture, discussion and field experience.

HPS 1623-3 **Prevention and Care of Athletic Injuries (3 + 0)**
This course is designed to provide students with an overview of the diverse field of sports medicine and a survey of common activity related injuries. Topics include injuries to the upper extremity, lower extremity, head, spine and internal organs. The athletic injury assessment process and treatment and therapeutic protocols will be discussed. This course is one of the gateway courses to the Athletic Training Education Program but open to all students.

HPS 1640-2 **Physical Fitness Techniques and Programs (1 + 2)**
This course is designed to provide the student basic skills, practice, and theory in physical fitness. Major components of muscle strength, muscle endurance, cardiovascular pulmonary endurance, flexibility and body composition are discussed in detail. Exercise prescription skills, administration skills, and leadership skills are enhanced through active participation in conditioning activities.

HPS 2020-3 **Community Health (3 + 0)**
A course designed to provide an in-depth study into health matters involving virtually all citizens for teachers of health education. Emphasis is in promoting community health, preventing disorders and disabilities, environmental health and health services.

HPS 2050-3 Sport Industry (3 + 0)
Prerequisite: upper division standing
This survey course is designed for the HPSL professional who desires a career in the professional sport setting, commercial sports industry including sales, promotions, marketing and sport arena facility operations.

HPS 2060-3 Emergency Rescue/First Responder & CPR (3 + 0)
This course is designed for the professional and layperson to prepare them in emergency response and cardiopulmonary resuscitation for infants, children and adults.

HPS 2070-3 Sport Venue Operations (3 + 0)
This course is designed for the HPSL professional who wants to work in sport venue operations areas such as ticket operations, facility maintenance, security, traffic flow, financing, staffing and day of game procedures.

HPS 2080-1 Physical Education 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 physical education, including the Colorado Model Content Standards for Physical Education, to elementary curriculum planning, implementation, and assessment. This is a course designed to acquaint students with theories, rationale, activities, and materials used to teach physical activities to children at the elementary school level. Appropriate methods for integrating physical education into the elementary curriculum will be explored.

HPS 2130-3 Activities and Health for the Elementary Child (3 + 0)
The course provides prospective early childhood and elementary teachers with a basic background in elementary school physical education and health education programs, including the role of health science in the schools, the contributions of physical education to the school health program, safety education, fundamental motor skills and elements and activities included in a rhythms program. The course is designed for nonphysical education majors and minors and cannot be taken in lieu of HPS 2500, HPS 2520 and HPS 3000.

HPS 2160-3 Water Safety Instructor Certification (2 + 2)
Prerequisite: American Red Cross Advanced Lifesaving Certification or Lifeguard Training Certification
This course studies the methods of teaching water safety, skill analysis and correction. Course leads to Red Cross Water Safety Instructor Certification. Field experience assignments will be a required part of the class.

HPS 2220-3 Foundations of Athletic Training (2 + 2)
Prerequisite: HPS 1623
Corequisite: HPS 2221
This course is designed to provide a study of prevention, recognition, and treatment of various athletic injuries as well as specific issues relating to the profession of athletic training. The objectives of this course address specific athletic training competencies and proficiencies. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 2221-2 Athletic Training Clinical Experience I (1 + 13)
Prerequisite: HPS 1623
Corequisite: HPS 2220
This is a clinical course for athletic training majors, addressing specific athletic training clinical proficiencies. This course is the first in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on clinical skills involved with the management of various athletic injuries/illnesses, taping, splinting, and wound care.

HPS 2440-3 Dance Production (3 + 0)
Prerequisites: HSL 1310, HSL 1330, or permission of instructor
This course is designed to take the dance student through the steps necessary for creating a dance performance. Stage lighting, costumes and makeup, props, management and promotion are part of this course.

HPS 2720-2 Fundamentals of Coaching (2 + 0)
Prerequisites: satisfactory completion of Level I General Studies course requirements
This is an entry-level course designed to meet requirements for a three-year letter of authorization for coaching in the state of Colorado. It will provide an introduction to the various technical aspects of coaching. (General Studies—Level II, Social Sciences)

HPS 2790-3 Pathology of Athletic Injury/Illness (3 + 0)
Prerequisite: HPS 1623
This course discusses the mechanical, physiological, and pathological aspects of athletic injury/illness. Emphasis is placed on parameters most important in understanding common pathological conditions associated with athletic injury/illness. Pharmacological interventions of these conditions and ergogenic aids are covered in depth.

HPS 2860-3 Therapeutic Modalities in Sports Medicine (2 + 2)
Prerequisite: HPS 2220
Corequisite: HPS 2861
This course will familiarize the athletic training student with the fundamental aspects and operational components necessary for the application of various therapeutic modalities employed in sports medicine. Theoretical rationale, clinical applications of, and clinical decision-making regarding the various modalities will be emphasized. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 2861-2 Athletic Training Clinical Experience II (1 + 13)
Prerequisite: HPS 2221
Corequisite: HPS 2860
This is a clinical course for athletic training majors, addressing specific athletic training clinical proficiencies. This course is the second in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on the clinical application of various therapeutic modalities and the principles of sound clinical decision-making.

HPS 2890-2 Personal Training: Concepts and Applications (2 + 0)
Prerequisite: Must be a sophmore level (or later) HPS major
This class is designed to help students learn the business of personal training, as well as to give them the tools to train all types of clients effectively. Class discussion, lectures, hands on training, demonstration and field trips will help students get a greater awareness of what it takes to be an excellent trainer.

HPS 3000-3 Health Programs in Human Performance and Sport (3 + 0)
Prerequisite: HES 1050
The emphasis of this course will be an examination of the health problems among adolescents that are most likely to be encountered by secondary school teachers or athletic trainers. Determinants of health behavior and models of prevention of negative health practices will be covered.

HPS 3100-3 Sport Industry Media Operations (3 + 0)
Prerequisite: HES 2050 or permission of instructor
This class is designed for business or sport professionals seeking employment in Sport Industry Operations and large event facilities. Media, business, journalism, marketing and public relations will be explored with content tailored specifically for the operations and facilities of the Sport Industry. Weekly topics will emphasize the roles of the individual media, (print, broadcast, and electronic) in sports operations and successful large facilities event planning.

HPS 3300-3 Anatomical Kinesiology (2 + 2)
Prerequisites: BIO 2310 or acceptable human anatomy course, and satisfactory completion of Level I General Studies course requirements
This course is a study of the musculature of the human body and the basic mechanics of human motion. Analysis of joint movement and muscular involvement in various physical activities will be emphasized. The application of the basic principles of physics to the analysis of human motion will be examined. Additional emphasis will be placed on the relevance of this analysis to teaching effectiveness and rehabilitation programs. (General Studies—Level II, Natural Science)

HPS 3320-3 Biomechanics (2 + 2)
Prerequisite: HPS 3300
This course deals with the application of the basic principles of physics to the analysis of human movement activities. Cinematographic analysis and prediction of performance are essential aspects of this class.

HPS 3340-3 Physiology of Exercise (2 + 2)
Prerequisites: BIO 2320, or acceptable human physiology course, HPS 1640, and all Level I General Studies course requirements
This course introduces the student to the physiological response of individuals to exercise as well as the application of these responses to sports medicine, rehabilitation and general fitness. The laboratory provides experiences that demonstrate the underlying theoretical constructs that govern physiological responses to exercise. (General Studies—Level II, Natural Science)

HPS 3400-3 Methods of Teaching Secondary Physical Education (3 + 0)
Prerequisites: EDS 3110, EDS 3120, HSL 1010, HSL 1020, HSL 1040, HSL 1050, or permission of instructor
Corequisite: HPS 3410
This course is a companion course to and must be taken concurrently with HPS 3410, Field Experience in Secondary Physical Education. The course teaches students how to convert content, theory and conceptual aspects of academic and professional teacher education into standards-based instruction through assignments, assessments, management plans, and teacher work samples. Students plan and micro-teach lessons integrating Colorado Model Content Standards and collaborate to develop interdisciplinary lessons that link physical education to reading and mathematics. Students design a variety of models of instruction and approaches to classroom management to support learner's growth toward Performance Based Standards for Colorado Teachers.

HPS 3410-2 Field Experience in Secondary Physical Education (0 + 4)
Prerequisites: EDS 3110, EDS 3120, HSL 1010, HSL 1020, HSL 1040, HSL 1050, or permission of instructor
Corequisite: HPS 3400
This course is a companion course to and must be taken concurrently with HPS 3400, Methods of Teaching Secondary Physical Education. This course integrates the content, theory, and conceptual aspects of academic and professional teacher education in a 60-hour standards-based field experience in secondary physical education. This field experience provides the pre-student teaching candidate opportunities in school settings to demonstrate their developing teaching competencies and extends opportunities to implement and assess integrated lessons that promote student achievement. Students apply principles of teaching and classroom management to make appropriate decisions for diverse groups of learners and to adjust approaches for secondary physical education students with special needs.

HPS 3460-3 Measurement and Evaluation in Human Performance and Sport (3 + 0)
Prerequisite: junior or senior standing
This course is required for all majors in the HPSL teacher track programs. It is designed to help students learn how to measure and evaluate performance in physical education classes in a school setting. Particular attention is given to using computer software for analyzing measurement data.

HPS 3500-3 Methods of Teaching Elementary Physical Education (3 + 0)
Prerequisites: EDS 3110, EDS 3120, HSL 1010, HSL 1020, HSL 1040, HSL 1050, or permission of instructor
Corequisite: HPS 3510
This course is a companion course to and must be taken concurrently with HPS 3510, Field Experience in Elementary Physical Education. The course teaches students how to convert content, theory and conceptual aspects of academic and professional teacher education into standards-based instruction through assignments, assessments, management plans, and teacher work samples. Students plan and micro-teach lessons integrating Colorado Model Content Standards and collaborate to develop interdisciplinary lessons that link physical education to reading and mathematics. Students design a variety of models of instruction and approaches to classroom management to support learner's growth toward Performance Based Standards for Colorado Teachers.

HPS 3510-2 Field Experience in Elementary Physical Education (0 + 4)
Perequisites: EDS 3110, EDS 3120, HSL 1010, HSL 1020, HSL 1040, HSL 1050, or permission of instructor
Corequisite: HPS 3500
This course is a companion course to and must be taken concurrently with HPS 3500, Methods of Teaching Elementary Physical Education. This course integrates the content, theory, and conceptual aspects of academic and professional teacher education in a 60-hour standards-based field experience in elementary physical education. This field experience provides the pre-student teaching candidate opportunities in school settings to demonstrate their developing teaching competencies and extends opportunities to implement and assess integrated lessons that promote student achievement. Students apply principles of teaching and classroom management to make appropriate decisions for diverse groups of learners and to adjust approaches for elementary physical education students with special needs.

HPS 3620-2 Trends and Issues in Human Performance and Sports (2 + 0)
A chronological study of American physical education, human performance and sports from 1840 to the present, as reflected through trends and issues. European history as it relates to American physical education and the development of AAHPERD are included, plus a comparative view of sport, human performance and physical education with English-speaking and Eastern bloc countries.

HPS 3700-2 Psychology of Coaching (2 + 0)
The psychology of coaching various sports. An in-depth study of motivation of the athlete and how the athlete responds under given conditions.

HPS 3720-3 Science and Art of Coaching and Athletic Administration (3 + 0)
This course covers principle aspects of coaching pedagogy and the organizational and planning techniques necessary for successful coaching.

HPS 3780-2 Fitness Programs for Special Populations (2 + 0)
Prerequisite: HPS 1640
Discusses ways to adapt fitness programs to meet the needs of people with special exercise requirements such as diabetes, asthma, emphysema, coronary disease and pregnancy.

HPS 3830-3 Upper Body Injury Evaluation (2 + 2)
Prerequisites: HPS 2790, HPS 2860
Corequisite: HPS 3831
This course introduces the athletic training student in the injury evaluation process associated with upper body athletic injuries. Emphasis is placed upon the injury history, observation, palpation of specific anatomical structures, and range of motion, strength, and functional testing leading to specific injury recognition. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 3831-2 Athletic Training Clinical Experience III (1 + 13)
Prerequisite: HPS 2861
Corequisite: HPS 3830
This is a clinical course for athletic training majors, addressing specific athletic training clinical proficiencies. This course is the third in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on the clinical skills applied to the evaluation techniques involved with upper body athletic injuries.

HPS 3850-3 Lower Body Injury Evaluation (2 + 2)
Prerequisite: HPS 3830
Corequisite: HPS 3851
This course introduces the athletic training student in the injury evaluation process associated with lower body athletic injuries. Emphasis is placed upon the injury history, observation, palpation of specific anatomical structures, and range of motion, strength, and functional testing leading to specific injury recognition. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 3851-2 Athletic Training Clinical Experience IV (1 + 13)
Prerequisite: HPS 3831
Corequisite: HPS 3850
This is a clinical course for athletic training majors, addressing specific athletic training clinical proficiencies. This course is the fourth in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on the clinical skills applied to the evaluation techniques involved with lower body athletic injuries.

HPS 3910-3 Safety Education (3 + 0)
This course provides the student with knowledge about accident prevention in many areas: home, school, physical and recreational activities, traffic and community.

HPS 3990-1–3 Field Experience in Human Performance and Sport (0 + 2–4–6)
Prerequisite: approval of instructor
Provides opportunities for students to gain practical experience assisting in the conduct of sports-type and recreation activities with community agencies, schools and the college. Includes K–12 licensure.

HPS 4200-3 Community Fitness Testing and Program Planning (2 + 2)
Prerequisites: HPS 3340 (HPS 4680 suggested)
This course is designed to provide the student with the opportunity to conduct laboratory fitness assessments, evaluate test results and develop exercise prescriptions. In addition, the student will be expected to become knowledgeable about the promotion and marketing of fitness programs.

HPS 4500-3 Motor Learning and Development (3 + 0)
Prerequisite: junior or senior standing
The focus of this course will be an examination of motor learning principles and their role in the developmental stages of individuals. Emphasis is placed on the various aspects of perceptual motor control and environmental factors affecting skill acquisition.

HPS 4600-3 Organization, Administration and Curriculum of Human Performance and Sport (3 + 0)
Prerequisites: senior standing, HPS 1600, and satisfaction of Level I and II General Studies course requirements
This course is designed to teach curriculum design and concerns and the organizational and administrative policies and procedures for developing, conducting and administering programs in human performance. This is a senior experience course and is required of HPSL teaching preparation majors (K-6, K-12, Secondary) and Sport & Allied Fields concentration. (Senior Experience)

HPS 4620-4 Adaptive Human Performance and Sport Activites (2 + 2)
Prerequisite: completion of Level I General Studies course requirements
This course is designed to adapt human performance and sport activities to the physically and mentally impaired in school and community settings. This course offers 30 hours of field experience in selected settings for HPSL majors and minors.

HPS 4660-3 Legal Liability for Physical Educators, Coaches and Administrators (3 + 0)
Prerequisites: some coaching and/or formal courses (six hours) in human performance and sport, leisure studies, or health
This is an elective course designed to inform physical education teachers, coaches, and administrators of the implications and responsibilities of a legal nature involved in school or recreation activity and competitive programs. The purpose of the course is to prepare teachers, coaches, athletes and/or administrators to deal with and understand basic concepts and trends of law.

HPS 4680-3 Advanced Exercise Assessment Techniques (2 + 2)
Prerequisite: HPS 3340
This course is designed to acquaint the student with the maintenance of exercise laboratory equipment and its use in evaluating physiological capabilities during exercise. Provides experience with physiological testing using laboratory equipment, as well as on-site visitations to other laboratory settings.

HSP 4750-3 Upper Body Injury Rehabilitation (2 + 2)
Prerequisites: HPS 3830, HPS 3850
Corequisite: HPS 4751
This course will address the fundamental aspects and components of upper body athletic injury rehabilitation programs. Emphasis will be placed on design and implementation of specific therapeutic exercise programs. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 4751-2 Athletic Training Clinical Experience V (1 + 13)
Prerequisite: HPS 3851
Corequisite: HPS 4750
This is a clinical course for athletic training majors, addressing specific athletic training clinical proficiencies. This course is the fifth in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on the clinical skills applied to the rehabilitation techniques involved with upper body athletic injuries.

HPS 4770-2 Lower Body Injury Rehabilitation (1 + 2)
Prerequisite: HPS 4750
Corequisite: HPS 4771
This course will address the fundamental aspects and components of lower body athletic injury rehabilitation programs. Emphasis will be placed on design and implementation of specific therapeutic exercise programs. This is one of the sequential professional preparation courses in the Athletic Training Education Program.

HPS 4771-2 Athletic Training Clinical Experience VI (1 + 13)
Prerequisite: HPS 4751
Corequisite: HPS 4770
This is a clinical course for Athletic Training majors, addressing specific athletic training clinical proficiencies. This course is the sixth in the sequence of six clinical courses, each to be taken with the required corequisite. The emphasis of this course is on the clinical skills applied to the rehabilitation techniques involved with lower body athletic injuries.

HPS 4840-2 Comparative Fitness Programs (2 + 0)
Prerequisites: HPS 1640, HPS 3340
This course explores (1) current trends, issues, and environments in adult fitness management, (2) comparison of selected popular fitness and evaluation programs and, (3) certification programs and employment available for adult fitness personnel. This course will provide opportunities for onsite visitations, as well as practical experience with different fitness programs.

HPS 4850-3 **Seminar in Athletic Training (3 + 0)**
Prerequisites: HPS 4750, senior standing, completion of all major courses except for HPS 4770
This course is designed to synthesize athletic training knowledge and proficiencies with athletic health care administrative concerns. Additionally, the application of professional development issues, professional behaviors, and research within the field of athletic training will be examined. This is the capstone course for athletic training majors. (Senior Experience)

HPS 4870-10 **Internship for Athletic Training (1 + 27)**
Prerequisites: senior standing, completion of all courses in major curriculum, 2.75 GPA, and satisfaction of Level I and II General Studies course requirements
This internship is designed for Athletic Training Emphasis majors to provide experience in both a clinical and competitive setting. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

HPS 4880-10 **Internship for Adult Fitness (1 + 27)**
Prerequisites: senior standing, completion of all courses in the major curriculum, 2.75 GPA, and completion of Level I and II General Studies course requirements
This course is designed for adult fitness majors to provide a practical experience in the adult fitness field. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

HPS 4890-10 **Internship for Sport Industry Operations (1 + 27)**
Prerequisites: senior standing, major in HPSL, completion of all courses in the major curriculum, 2.75 GPA, completion of Level I and II General Studies course requirements
This course is designed for majors in human performance and sport who elect to have a practical experience in the sport industry operations concentration. Graded as Satisfactory/Unsatisfactory. (Senior Experience)

HUMAN PERFORMANCE, SPORT AND LEISURE ACTIVITIES (HSL)

HSL 1010-2 **Skills and Methods of Teaching Tumbling and Gymnastics (1 + 2)**
This course is intended for HPSL majors and minors. Students have opportunities to experience principles and applications for teaching basic tumbling and gymnastics skills appropriate for K-12 settings. Educational gymnastics and artistic gymnastics will be taught. Rhythmical gymnastics will be covered as well as spotting, progressions and equipment usage and maintenance.

HSL 1020-2 **Skills and Methods of Teaching Weight Training (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to acquaint the student with the basic skills, methods and techniques necessary to be a competent exercise leader in the area of resistance training. Emphasis will be placed on understanding selection of appropriate teaching progressions.

HSL 1030-2 **Skills and Methods of Teaching Physical Activities for Special Populations (1 + 2)**
This course is intended for HPSL majors and minors. The emphasis of this course is on sport and motor programs for special populations and programs related to those individuals with physical, mental, or multiple disabilities as well as the aging population. This course will include opportunities for experience in designing, implementing and evaluating existing sports and physical activity programs for the disabled.

HSL 1040-2 **Skills and Methods of Teaching Activities for the Young Child (1 + 2)**
This course is intended for HPSL majors and minors. Activities for the Young Child is a course designed to acquaint students with theories, rationale, activities and materials used to teach physical activities to children at the elementary school level.

HSL 1050-2 **Skills and Methods of Teaching Rhythms for the Young Child (1 + 2)**
This course is intended for HPSL majors and minors. Rhythms for the Young Child is a course that is designed to provide students the opportunity to gain a basic knowledge of rhythmical activities for use with children in the elementary school grades.

HSL 1100-2 **Skills and Methods of Teaching Team Handball, Lacrosse and Basketball (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the sports of Team Handball, Lacrosse and Basketball.

HSL 1110-2 **Skills and Methods of Teaching Soccer, Volleyball and Softball (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of soccer, volleyball and softball.

HSL 1120-2 **Skills and Methods of Teaching Basketball and Softball (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of basketball and softball.

HSL 1130-2 **Skills and Methods of Teaching Flag Football, Field Hockey, and Floor Hockey (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the team sports of Flag Football, Field Hockey and Floor Hockey.

HSL 1200-2 **Skills of Swimming, Water Safety, and Water Exercise (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills of personal safety in the aquatic environment, efficient movement through and in the water in both swimming styles and in water fitness activities, as well as a basic level of awareness of safety of others.

HSL 1210-2 **Skills and Methods of Teaching Archery, Track, and Field, and Fitness (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively teach or conduct the individual sports of Archery, Track and Field, and Fitness.

HSL 1220-2 **Skills and Methods of Teaching Bowling, Golf, and Recreational Activities (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to effectively play, teach or conduct the sports of Bowling, Golf, and Recreational Activities.

HSL 1230-2 **Skills and Methods of Teaching Tennis, Pickleball, and Badminton (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to teach and conduct the sports of Tennis, Pickleball, and Badminton.

HSL 1240-2 **Skills and Methods of Teaching Wrestling, Personal Defense, and Yoga (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop the skills, strategies and presentation techniques necessary to teach and conduct the activities of Wrestling, Personal Defense ,and Yoga.

HSL 1250-2 **Adaptive Aquatic Programs (1 + 2)**
Prerequisite: current ARC WSI certification
This course acquaints the student with various adapted aquatic programs and methods of teaching the mentally and/or physically disabled. The course leads to Red Cross Adaptive Aquatic certification.

HSL 1300-2 **Skills and Methods of Teaching Country Western and Folk Dance (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to prepare students to teach both dance forms in a variety of settings. This course will acquaint students with the various movement patterns used in each dance form, as well as prepare them to instruct students at various grade levels and in recreational settings.

HSL 1310-2 **Skills and Methods of Teaching Modern and Jazz Dance (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to prepare the student to teach jazz or modern dance at the beginning or intermediate level and to select appropriate musical accompaniment for the class.

HSL 1330-2 **Skills and Methods of Teaching Improvisation and Choreography (1 + 2)**
Prerequisites: minimum 1 semester ballet, jazz or modern dance or instructor's permission and 2 years of dance experience
This course presents the basic elements of dance. Students explore and create dance movements in order to arrive at finished choreographic studies and they will develop techniques and methods related to improvisation and choreography that will enhance their teaching skills.

HSL 1340-2 **Skills and Methods of Teaching Rhythms for Special Populations (1 + 2)**
This course emphasizes skills for the development, implementation and evaluation of rhythmic activities for the handicapped in recreation and rehabilitation programs. The course will also cover a variety of adapted dance and movement techniques for the auditorially and visually impaired, emotionally disturbed, physically handicapped, mentally handicapped and the aged.

HSL 1400-2 **Skills and Methods of Teaching Camping, Backpacking and Orienteering (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to develop skills, techniques and basic leadership principles needed for camping, backpacking and orienteering.

HSL 1410-2 **Skills and Methods of Teaching Teambuilding, Initiative & Ropes Course Activities (1 + 2)**
This course is intended for HPSL majors and minors. It is designed to provide an overview of the philosophy and basic skills of team building, initiative activities, and the use of ropes courses in physical education and recreational settings. An opportunity for hands-on participation will be included.

HSL 1420-2 **Activity and Fitness Programs for the Elderly (1 + 2)**
This course emphasizes skills for the development, implementation and evaluation of activities and fitness programs for older persons in various settings. This course will include opportunities for observation and involvement with various recreation agencies or health care facilities in the Denver area.

HSL 1430-2 **Camping for Special Populations (1 + 2)**
This class will provide information concerning methods and techniques applicable to camps for special populations and to outdoor recreational outings.

HSL 1440-2 **Skills and Methods of Teaching Stress Management (1 + 2)**
This course is designed to provide the prospective teacher with an understanding of the elements of stress induced conditions, as well as provide a means by which students in this class will become capable of teaching their students how to effectively relieve stressful conditions.

HSL 1500-2 **Human Performance, Sport and Leisure Studies: Variable Topics (1 + 2)**
These courses are required for human performance and sports and leisure studies majors and minors to meet departmental skill requirements in various physical behaviors. They also cover methods of teaching and field experience assignments. All HSL 1500 courses include a cognitive component with written and reading assignments, testing, and assigned laboratory activities.

HUMAN SERVICES

HSP 1010-4 **Introduction to Human Services and Community Resources (4 + 0)**
This class provides an overview of the helping professions and working within helping agencies. Students examine the attitudes, values and skills essential to becoming an effective Human Services Professional. Factors essential to those working in the helping professions including working with various cultural groups, understanding and interacting with populations having infectious diseases (especially HIV infection), ethics, and political involvement of agencies are important components of the course. Students completing HSP 1010 will have completed eight clock hours of HIV/AIDS education required for certification as substance abuse counselors.

HSP 1040-4 **Applied Behavior Analysis (4 + 0)**
This course will provide the student with an understanding of the scientific method and the application of the principles and technology of behavioral analysis.

HSP 1110-4 **Introduction to Disabilities (4 + 0)**
This course enables students to acquire an appreciation for and sensitivity towards the capabilities, limitations and challenges of individuals with disabilities throughout their life span.

HSP 1470-3 **Addictive Experiences: Sex, Drugs, Rock and Roll (3 + 0)**
How much is too much in the addictive lifestyles in contemporary America? This course provides an examination of the balance between theories of addiction and the addictive experiences. It also focuses on the process of developing healthy habits and nonaddictive lifestyles. This is an elective course for students NOT pursuing a drug/alcohol emphasis and for nonmajors. It is not counted as a required elective for drug/alcohol emphasis students.

HSP 2010-3 **Principles of Nonprofit Organization Administration (3 + 0)**
This course is designed to provide the student with a general knowledge of the creation, organization and systems administration of a wide variety of nonprofit organizations.

HSP 2020-4 **Small Group Dynamics: Theory and Experience (4 + 0)**
Prerequisite: HSP 1010
This course introduces the basic theories of small groups with experiential learning experiences to develop skills and strategies for effective group participation and leadership. The universality of feelings and concerns are shared so that one can recognize the dynamics of interpersonal interaction, predict dynamics accurately, demonstrate effective leadership skills and learn to exercise control of the group process and interaction in small group situations.

HSP 2030-4 Theory and Practice of Counseling (4 + 0)
Prerequisite: HSP 1010
This course familiarizes students with major theoretical approaches to psychotherapy and to basic interview techniques common to most types of psychotherapy. Students examine and practice effective interviewing skills and learn how to gather essential information from clients. The main theories in psychotherapy are also examined.

HSP 2040-4 Family Systems (4 + 0)
Prerequisites: HSP 1010, HSP 1040 and HSP 2030
This class provides a brief review of family systems and the roles of family members in traditional and non-traditional families. The theoretical basis for family therapy modalities which serve as guidelines for therapy are described.

HSP 2050-8 Human Services Practicum I (1 + 20)
Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030, HSP 2040, and permission of instructor
This is a 15-hour seminar and a 300-hour practicum that will provide beginning field experience in a human services agency or institution. The student will participate and receive training in the fundamentals of counseling, evaluation, treatment, group dynamics, and interpersonal relationships. The student will learn to perform appropriately to increase skills and effectiveness as a human services student.

HSP 2060-8 Human Services Practicum II (1 + 14)
Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030, HSP 2040, and permission of instructor
This is a 15-hour seminar and a 300-hour practicum that provides professional experience in a human services institution. Practicum II differs from Practicum I in that the student will be in a different agency setting, demonstrate professional competencies and complete an agency analysis. The student will gain experiences in in-takes, counseling, evaluation, treatment, group dynamics, interpersonal relationships, documentation, multicultural counseling and agency analysis for effective functioning as a human services professional. The student is expected to choose his or her concentration for this field placement.

HSP 2110-3 Inclusive Community Services for People with Disabilities (3 + 0)
This course prepares students to facilitate the successful integration of people with significant disabilities into community employment, education, living and recreation activities. It presents strategies for effective service design and implementation.

HSP 3040-3 Brief Therapy for Couples (3 + 0)
Prerequisite: HSP 2040 or permission of instructor
Students will study the counseling of persons involved in emotionally intimate relationships from the perspective of childhood experiences with parents or other primary caretakers. Topics covered will include the influence on the clients of emotional abandonment, childhood wounds, male and female issues, and the tendency to project unmet childhood needs onto adult relationships. Counseling interventions to improve the communication skills of couples will be addressed.

HSP 3210-3 Organizational Stability for Nonprofits (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
This course will utilize a systems thinking approach to examine the legislative process, advocacy and lobbying, the components of grassroots community building, and the application of strategic planning models in nonprofit organizations.

HSP 3220-2 Conflict Resolution and Decision-Making (2 + 0)
Prerequisite: junior or senior standing or permission of instructor
This course will focus on the nature, analysis and management of conflict and the use of negotiating skills in leadership situations.

HSP 3230-4 High Risk and Offender Youth (4 + 0)
Prerequisites: HSP 2050, HSP 2060, or permission of instructor
This course is designed to provide an overview and analysis of differential theory and approaches to working with high risk and offender youth who are alcohol and drug involved. Special emphasis will be given to the role of community, family and youth-specific risk and protective factors. Prevention of not only alcohol and drug problems, but other serious contemporary youth issues such as violence, teen pregnancy, sexually transmitted diseases, suicide and school drop-out will be addressed. An overview of multiple and sometimes fragmented service delivery systems will be provided. Special topics will also include multicultural issues, intervention techniques, and innovative alcohol and drug treatment approaches found to be particularly effective with this population.

HSP 3260-2 Survey of the High Risk Youth Integrated Services and Treatment Network (2 + 0)
Prerequisite: HSP 3230 or permission of instructor
This is an advanced course designed to introduce the potential youth advocate counselor to the range of issues, services and systems involved in the care and treatment of high risk youth including: alcohol and drug treatment; mental health; education; social services; law enforcement; vocational/employment; and others. The course focus is on understanding and building interdisciplinary partnerships on behalf of youth in a variety of professional contexts. An emphasis is on learning to work effectively across and between systems as well as within them.

HSP 3330-3 Ethical and Legal Issues in the Helping Professions (3 + 0)
Prerequisites: HSP 2030, ENG 1010, ENG 1020
This course provides a basic understanding of the legal and ethical issues in the human services profession and provides an opportunity for students to apply standards from the code of ethics as well as laws in situations that often arise in agencies providing case management and counseling.

HSP 3400-3 Pharmacology of Drugs and Alcohol (3 + 0)
Prerequisite: satisfaction of National Science General Studies requirements including BIO 1000 or permission of instructor
This is a course in the composition, classification, effects, uses and abuses of drugs and alcohol. Students learn the ways that psychoactive substances impact the central nervous and immune systems. Related social and political issues are integrated into the course content.

HSP 3410-3 Addiction Family Counseling/Advanced Topics (3 + 0)
Prerequisite: HSP 2040 or permission of instructor
This course introduces students to the range of theory and application related to methods of intervening therapeutically with the alcohol and drug involved family. Critical elements of understanding the needs of this population are multicultural and structural diversity in family systems, adolescent substance abuse and its impact on the family, maternal substance abuse, and incorporating a strengths-based approach to family treatment planning.

HSP 3430-3 Addictive Behaviors (3 + 0)
Prerequisites: HSP 1040 and HSP 2030
This course provides a detailed study of specific addictive behavior patterns and the most common treatment methods. The range of addictions studied includes a variety of non-substance using behaviors such as gambling and eating disorders as well as addictions involving substances. This course will help students clarify a theory of addiction, gain knowledge about the etiology of specific addictions and be introduced to current treatment approaches utilized in the field.

HSP 3450-3 Crisis Intervention (3 + 0)
Prerequisites: HSP 2030 and HSP 2040
This course focuses on crisis intervention. Course work is designed to give the student an opportunity for competencies development, and increased understanding of emergency procedures and therapeutic interventions.

HSP 3470-4 Counseling the Substance Abuser (4 + 0)
Prerequisites: HSP 2030 and HSP 2040
This is a course offering specifically oriented to counseling the substance abuser. Coursework is designed to give the trainee experience in applying fundamentals of individual counseling techniques and client records management. Students completing the course will meet the ADAD requirements for Basic Counseling Skills and Client Record Management.

HSP 3480-2 Applied Counseling Skills (2 + 0)
Prerequisite: HSP 2030
Restriction: This class is for Human Services majors who are not pursuing a concentration in Addiction Studies. The class does not substitute for HSP 3470. Enrollment is limited to 24 students.
This course provides descriptions of entry-level counseling skills and an opportunity to practice the skills with other students. The focus is on understanding and using the skills in counseling situations.

HSP 3490-4 Multicultural Issues in Human Services (4 + 0)
Prerequisites: HSP 2030 and satisfaction of Level I General Studies course requirements
This course is designed for those who are intending to work in the delivery of human services especially in the assessment, communication, diagnosis and conducting of counseling and therapy. The course examines the research that involves the interaction of counselor and client in individual, group and family therapy. (General Studies—Level II, Social Sciences; Multicultural)

HSP 3500-3 Domestic Violence: Patterns of Relationship Abuse (3 + 0)
Prerequisites: HSP 2030 and HSP 2040
The exploration of behavior patterns within families where domestic violence occurs is examined through the study of victims, perpetrators and children within the family. Socialization patterns, developmental stages and psychopathological states that impact on violence between partners are explored, along with treatment issues and approaches for each person.

HSP 3510-3 Development and Administration of Volunteer Programs (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
Volunteerism is a growing phenomenon that continues to change the face of American Society. Each year, close to 100 million Americans report some type of volunteer activity. This course will examine the history, growing trends and future of the volunteer sector. Students will be provided with a basic understanding of the role, responsibilities and obligations in the supervision and management of volunteers.

HSP 3560-2 Motivational Interviewing (2 + 0)
Prerequisite: HSP 2030 or permission of instructor
This course describes the change process in clients and prepares the counselor to identify readiness for change. Students are taught interviewing skills which are specific to various stages of recovery and relapse. The focus of the process taught is to minimize or avoid resistance and to promote essential changes in substance abuse or domestic violence clients.

HSP 3580-1 The Resistive Client (1 + 0)
Prerequisite: junior or senior standing or permission of instructor
This course provides the student with a clear understanding of resistance in the counseling process both from the perspective of the client and of the counselor. Various models are used in overcoming resistance and are presented and demonstrated. This course meets the resistive client mandatory training requirement for the CAC II Level for Colorado Addictions Counselors.

HSP 3590-1 The Resistive Adolescent Client (1 + 0)
Prerequisite: HSP 3230 or permission of instructor
This is an advanced course intended to instruct the human services professional who counsels youth to understand and apply principles related to working with resistance. This course will focus on counseling with resistive youth in an involuntary treatment setting. Students will learn about motivational approaches to dealing with anger and understanding cultural barriers to effective counseling. Various models will be utilized and demonstrated including motivational interviewing and strengths-based counseling. This course meets the resistive client mandatory training requirement for CAC II and III for Colorado Addictions Counselors.

HSP 3600-2 Domestic Violence: Perpetrators of Abuse (2 + 0)
Prerequisites: HSP 2030 and 2040
This course explores and describes the behaviors and attitudes of those who abuse others, the cycle of violence, intergenerational violence and the impact of violence on the lives of perpetrators and victims. Students will learn about diagnostic tools to determine lethality and intervention therapy.

HSP 3610-3 Financial Accountability and Organizational Control in Nonprofit Organizations (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
The course will include the skills needed to properly manage financial resources and organizational controls in a variety of nonprofit organizations. Topics will include financial record-keeping systems and statements, budgeting, tax compliance, cost control, and program accountability and evaluation.

HSP 3620-2 Prevention Generalist Workshop (2 + 0)
Prerequisites: HSP 1010, HSP 1040, HSP 2020, HSP 2030 and HSP 2040 or permission of instructor
This class provides the student with information about attitudes of communities and legislative and regulatory agencies towards substance use/abuse. Varying theoretical bases for prevention programs are presented.

HSP 3710-3 Research Methods for Human Services (3 + 0)
Prerequisites: junior or senior standing; MTH 1210 or PSY 2310 or permission of instructor
This course allows students to gain the basic competencies and knowledge necessary to evaluate the research of others and to plan and conduct their own research in the human services and related fields. Students will learn the philosophy, tools and procedures of scientific inquiry and the concepts, assumptions and terminology of the scientific method. Students will examine the role of previous research and theory in planning research studies and how theory, experience, observation and related literature lead to hypothesis formulation.

HSP 3750-4 Holistic Health and High-Level Wellness (4 + 0)
Prerequisite: HES 2750 or permission of instructor
This course will give the student the opportunity to explore and evaluate holistic health and high level wellness on a personal as well as a professional level. Students will be introduced to the emerging paradigm of health and to a holistic approach towards accessing wellness. The course will include current theory and experiential methods.

HSP 3810-3 Fundraising Strategies for Nonprofit Organizations (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
The course will examine the various strategies used by nonprofit organizations to raise funds for operating, program, and capital needs. Topics explored include direct mail, planned giving, individual solicitation, workplace giving, special events, and major gift campaigns.

HSP 4030-3 Grant Proposal Research and Writing for Nonprofit Organizations (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
The course presents an in-depth look at all aspects of grantwriting of private sector proposals. Emphasis is placed on successful grantwriting strategies and the completion of a full grant proposal. The emerging practice of social venture philanthropy and its effect on grantmaking will be examined.

HSP 4040-3 Cognitive Behavior Therapy (3 + 0)
Prerequisites: HSP 1040 and HSP 2030 or permission of instructor
This course examines the early and current development of cognitive behavior therapy as pioneered by Drs. Aaron Beck and Albert Ellis. Cognitive behavior has become one of the most widely used therapies during the last two decades. Students will apply C.B.T. by examining thoughts and beliefs connected to moods, behaviors, physical experiences and events.

HSP 4100-2 Gerontology for Human Service Professionals (2 + 0)
Prerequisites: HSP 1010, HSP 2030 and HSP 2040
This course focuses on the ways in which human services professionals can provide counseling for aging persons. This is a skills-based course that uses the basic clinical skills learned in interviewing classes but expands these skills toward working with the aged. The course will also give students an opportunity to work with aging individuals in a human service capacity. The major developmental aspects of aging will be reviewed.

HSP 4110-2 Enabling People with Disabilities (2 + 0)
Prerequisite: HSP 1110 or permission of instructor
The course is designed to provide the student with an understanding and awareness of people with disabilities. The student will be introduced to the concept of social role valorization and the implications of this concept for planning services for people with disabilities.

HSP 4200-2 Child Abuse and Neglect (2 + 0)
Prerequisites: HSP 2030 and HSP 2040
This course deals with an historical understanding of child abuse, neglect and sexual exploitation, including definitions, dynamics, effects on the victim, how society intervenes and prevention methods.

HSP 4250-2 Counseling the Gay or Lesbian Client (2 + 0)
Prerequisite: HSP 2030
The rate of abuse of psychoactive substances among gays and lesbians is significantly higher than in the rest of the population. Violence, while under the influence, brings these individuals into counseling. The issue of homosexuality in the greater society must be considered when counseling these individuals. This course addresses the lifestyle patterns of homosexuals and the relationship to substance abuse and violence treatment.

HSP 4280-1 Gender Issues in Treatment and Recovery (1 + 0)
Prerequisite: HSP 2030
The socialization of males and females affects the use/abuse of psychoactive substances. A high percentage of persons in treatment for domestic violence also have underlying substance abuse issues. This class addresses gender-related treatment and recovery considerations.

HSP 4290-1 PTSD Counseling (1 + 0)
Prerequisite: HSP 2030
Post-Traumatic Stress Disorder (PTSD) occurs among people who have experienced violence, whether the cause is war, child abuse, or domestic violence. Eighty-five percent of people with PTSD abuse psychoactive substances. This course explores the causes of PTSD, the symptoms and treatment. The relationship of the disorder to substance abuse and violence in the form of domestic disturbances is studied along with intervention and treatment.

HSP 4310-3 Human Resource Development in Nonprofit Organizations (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
The course will provide students with a comprehensive study of the use of human resources in a variety of roles within nonprofit organizations, including hiring and retention, staff development of evaluation, and labor management issues.

HSP 4320-4 Psychopathology and the Mental Health Clinician (4 + 0)
Prerequisites: HSP 2050, HSP 2060 or permission of instructor
This course introduces and describes psychopathology nomenclature so that students will be able to recognize psychopathology. Biological, psychosocial and sociocultural etiological perspectives of psychopathology will be discussed. The course will introduce the basic treatment approaches and critically analyze the advantages and disadvantages of mental disturbance labeling and their societal implications.

HSP 4360-4 Advanced Intervention Techniques (4 + 0)
Prerequisites: HSP 2030 and HSP 2040; HSP 2050 and HSP 2060
This is an advanced therapeutics course designed for the human services professional with emphasis on the correct assessment of dysfunctional behaviors and their indicated treatment/interventions.

HSP 4490-1–4 Contemporary Issues in Human Services: Variable Topics (1–4 + 0)
Prerequisite: junior or senior standing or permission of instructor
This is a variable titled course focusing on current issues and trends in the field of human services. The course is designed to provide the human services professional with an opportunity to explore new or alternative modalities in assessment, intervention and treatment of dysfunctional behaviors. This course may be repeated for credit under different topics.

HSP 4520-3 Grief Counseling (3 + 0)
Prerequisite: HSP 2030 or permission of instructor
Loss is a natural consequence of living. This is a skills-based class that deals with the grief process as it relates to life changes, divorce, aging, illness and death. Students will learn specific strategies for counseling those who have experienced loss.

HSP 4540-2 Youth, Drugs and Gangs (2 + 0) (CJC 405B, EDS 4540)
Prerequisites: HSP 2030 and HSP 2040
Child abuse, neglect and substance abuse are underlying issues for gang members. This course explores the reasons youth are attracted to and join gangs and the correlation between psychoactive substances and violence. Credit will be granted for only one prefix: HSP, CJC or EDU.

HSP 4680-3 Supervisory Techniques in Nonprofit Health Care Agencies (3 + 0)
Prerequisite: HSP 2010 or permission of instructor
This course will provide students with the theoretical models, principles and skill development required to supervise employees in a health care (nonprofit) setting.

HSP 4710-3 Critical Issues for Nonprofits (3 + 0)
Prerequisites: HSP 2010 and one of the following: HSP 3210, HSP 3610, HSP 4020, HSP 4310, or permission of instructor
The course investigates and analyzes the critical economic, political and social issues affecting the nonprofit sector and develops a dialogue around specific issues and resulting outcomes in nonprofit work.

HSP 4790-12 Professional Internship (2 + 30)
Prerequisites: Human Services major with senior standing and/or approval of department chair and satisfaction of all Level I and Level II General Studies course requirements; HSP 2050 or permission of instructor
The professional internship is the culmination of training for the bachelor's degree in human services. The internship is distinguished from work activities in that it is the student's responsibility to demonstrate that some project has been completed above and beyond the usual requirements of a job. (Senior Experience)

INTERCULTURAL STUDIES

ICS 1000-3 Introduction to Asian-American Studies (3 + 0)
Prerequisite: minimum performance standard scores on the reading and writing preassessment placements tests
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 **Women of Color (3 + 0) (AAS 2100, CHS 2100, NAS 2100, WMS 2100)**
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, orgthographic 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 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 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 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 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.

ITA 2020-3 **Intermediate Italian II (3 + 0)**
Prerequisite: ITA 2010 or equivalent
This course is a continuation of ITA 2010 and is designed to continue strengthening grammar skills and oral proficiency. It presents examples of social, political, cultural, and literacy topics. This course is 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 cutline 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: Variable Topics (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.

LAS 2850-3 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. (General Studies—Level II, Arts and Letters)

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: Variable Topics (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 American Sign Language I (3 + 0) (EDU 1610, SPE 1610)
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 Cultural Crossroads: France, Germany, Spain (3 + 0) (FRE 3050, GER 3050, SPA 3050)
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 a 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 & 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)
Prerequisite: ENG 1020
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. The course requires analysis of statutes, cases, regulations of related governmental agencies that address employment, securities, trade and workplace decisions. The law of agency, contracts, organizations and torts is 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
(WMS 4830) **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. Credit will be granted for only one prefix: MGT or WMS. (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 miliary 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. This 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 3110, 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 and one-half years 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) (Guaranteed Transfer—MA1)

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. (Guaranteed Transfer—MA1)

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: Completion of MTH 1110 and MTH 1120 with grades of "C" or better or other evidence showing knowledge of this material or an appropriate score on a department-approved placement test
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. (Guaranteed Transfer—MA1)

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. (Guaranteed Transfer—MA1)

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 1610-3 Integrated Mathematics I (3+ 0)
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.
This course integrates mathematical topics including those from algebra, geometry, probability and statistics. Students take a concept-oriented approach to: exploring critical problems from an advanced standpoint; deriving and justifying multiple solutions; analyzing and communicating the reasoning behind these solutions. (General Studies—Level I, Mathematics)

MTH 2140-2 Computational Matrix Algebra (2 + 0)
Prerequisite: MTH 1120 or MTH 1400 or equivalent with a grade of "C" or better
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. Only one of the three courses MTH 2140, MTH 3130, or MTH 3140 can be counted in the mathematics major or minor.

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 2620-3 Integrated Mathematics II (3 + 0)
Prerequisite: MTH 1610 or permission of instructor
This course continues the concept oriented, integrated study of mathematical topics including those from algebra, geometry, statistics, and combinatorics. Students further deepen their mathematical understanding and their ability to justify solutions, and analyze and communicate their reasoning about complex problems.

MTH 3100-3 Introduction to Mathematical Proofs (3 + 0)
Prerequisite: MTH 2410 with a grade of "C" or better and permission of department faculty advisor
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 3130-4 Advanced Matrix Methods for the Physical Sciences (4 + 0)
Prerequisite: MTH 2410 with a grade of "C" or better
This is a course in the principles and application of matrix methods, primarily to problems in the surveying and engineering fields. Topics include solving systems of linear equations, determinants, matrix algebra, vector spaces, eigenvalues and eigenvectors, orthogonality, nonlinear least squares and geodesy, and finite elements. A software package will be used in this course. Only one of the three courses MTH 2140, MTH 3130, or MTH 3140 can be counted in the mathematics major or minor.

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. Only one of the three courses MTH 2140, MTH 3130, or MTH 3140 can be counted in the mathematics major or minor.

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 3600-3 Mathematics of the Elementary Curriculum (3 + 0)
Prerequisite: MTH 2620, community college course MAT 156, or permission of the Department of Mathematical and Computer Sciences
This course approaches mathematical concepts outlined in Colorado Model Content Standard for Mathematics (grades K-5) from an advanced perspective. By examining video and written cases of children doing mathematics, students in this course will (1) connect their developing understanding to important mathematical concepts they will be required to teach; (2) turn their attention from understanding their own mathematical thinking, and the thinking of their classmates, to understanding the mathematical thinking of children; (3) lay the foundation for being able to learn mathematics from teaching.

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 Weather and Climate (3 + 0)
Prerequisite: minimum performance standard scores on reading, writing, and mathematics preassessment placement tests
This course introduces the fundamental physical processes in the atmosphere - heat and energy, temperature, pressure, wind, clouds, precipitation, and stability. These concepts provide the basis for understanding weather systems such as thunderstorms, tornadoes, and hurricanes. These processes are also applied to climatic patterns and the impacts of human activity on weather and climate, such as air pollution and climate change. This course does not apply toward a meteorology major or minor. (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 in 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 or AES 1400 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 and cultural 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/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 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/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 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/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 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, & 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/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 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/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. 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/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 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/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 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/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 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/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 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/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. 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/performances 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 Women of Color (3 + 0) (AAS 2100, CHS 2100, ICS 2100, WMS 2100)
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 Land Use, Culture and Conflict (3 + 0) (GEG 3300, PSC 3300)
Prerequisites: ENV 1400 or NAS 1000 or PSC 1010 and junior or senior standing
This course id 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 learns 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 3750-3 Clinical Pathophysiology for Nurses (3 + 0)
Prerequisite: BIO 2320 or its equivalent
This course is designed to familiarize the nursing student with the science of pathophysiology. Diseases are discussed with an emphasis on clinical applicablility. Critical thinking skills will be utilized in determining the rationale for alterations in function of specific body systems.

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, NUR 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, NUR 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 3300-3 Cultural Aspects of Nutrition (3 + 0)
Prerequisites: NUT 2040
This course is designed to increase the student's knowledge about the role of food in culture, religion, and health. The differences between cultures and the significance of those differences is emphasized. This course analyzes the nutritional adequacy and health benefits of diets of different cultures.

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 3600-3 Eating Disorders I (3 + 0)
Prerequisites: NUT 3400 or permission of instructor (a minor for Eating Disorders has been developed contact the Health Professions department for further details)
This course is an introduction to advanced study of obesity and eating disorders. This course presents the major classifications of obesity and the accompanying physical and physiological consequences, as well as a mind-body approach to treatment with emphasis on health at every body size. The history, risk factors, prevalence, dynamics and treatment modalities to disordered eating will be examined. The student will assess the role of the media in disordered eating and dieting, as well as evaluate scientific literature in eating disorders and weight issues.

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.

NUT 4600-3 Eating Disorders II (3 + 0)
Prerequisites: NUT 3600 or permission of instructor (a minor for Eating Disorders has been developed contact the Health Professions department for further details)
This course is the second course focused on the study of obesity and eating disorders. This course presents an analysis of the physiological and medical aspects of anorexia nervosa, bulimia nervosa, and eating disorders not otherwise specified, focusing on predisposition, differential diagnosis, exercise, purging, starvation, and binge eating. Treatment modalities will be examined, including medical, nursing, dental, nutritional, psychological, and other forms of therapy.

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

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.

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.

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.

PHI 3910-3
(WMS 3910) **Women's Spirituality (3 + 0)**
Prerequisites: WMS 1001 or PHI 1010
This course will explore the philosophical basis for and nature of women's spirituality. Political, social, and cultural aspects of the women's spirituality movement will be analyzed both within and beyond traditional institutionalized religion; facets of women's individual spiritual growth and development express themselves in a variety of ways, and this course seeks to examine emotional, cognitive, somatic, and physical aspects. Students will also have opportunities to participate in the art, music, and rituals associated with various traditions and to create projects that will illuminate their personal experiences. Credit will be granted for only one prefix: PHI or WMS.

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. Satisfaction of either ENG 1010 or the Level I Communications requirement. Completion of PHY 2311 and PHY 2321 with a passing grade is required to receive General Studies credit.
Corequisite: MTH 1410
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: 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 PHY 2341 with passing grades is required to receive General Studies credit. Concurrent registration with PHY 2341 is recommended
Corequisite: MTH 2410
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 2811-4 Modern Physics I (4 + 0)
Prerequisites: MTH 2410 and PHY 2331
This is the first course of a two-course sequence which provides an introduction to modern physics. Topics include vibrations and waves, the special theory of relativity, the breakdown of classical physics, and an introduction to quantum mechanics.

PHY 2821-3 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 3011-3 Modern Physics II (3 + 0)
Prerequisite: PHY 2811
This is the second half of a two-course sequence which provides an introduction to modern physics. The concepts and formalism of quantum physics are used to allow for an understanding of the energy levels and configuration of the hydrogen atom, the strength of molecular bonds, atomic and molecular spectroscopy, solid state physics, band theory, nuclear and subatomic physics. An introduction to quantum statistics, general relativity and cosmology is also given.

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 3120-3 Methods of Mathematical Physics (3 + 0)
Prerequisite: MTH 3420 and MTH 2420
This course introduces mathematical techniques useful for solving equations commonly found in physics. Topics include methods of solving partial differential equations, special functions, and integral transforms.

PHY 3211-4 Analytical Mechanics (4 + 0)
Prerequisites: PHY 2821 and MTH 3420, or consent of instructor
This is 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 3411-3 Thermal Physics (3 + 0)
Prerequisite: MTH 3420, PHY 2821, 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 3811-3 Quantum Mechanics (3 + 0)
Prerequisites: MTH 3420, PHY 2811, PHY 2821 or consent of instructor
This is a course in which both wave mechanics and matrix mechanics are developed and applied to selected problems in atomic physics. Particular topics include solutions to the time-independent Schrödinger equation for the hydrogen atom, tunneling, the harmonic oscillator, electron spin and approximation methods.

PHY 4331-4 Electricity and Magnetism (4 + 0)
Prerequisites: MTH 3420 and PHY 2821, or consent of instructor
This is a course in electricity and magnetism at the intermediate level. Topics include Maxwell's equations, boundary value problems, electrodynamics, and electromagnetic radiation.

PHY 4510-3 Optics (3 + 0)
Prerequisite: PHY 2821 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 4550-3 Astrophysics (3 + 0)
Prerequisites: PHY 2821, MTH 3420
This course covers stellar astrophysics, solar physics, star formation, stellar evolution, processes in the interstellar medium, galactic dynamics and evolution, formation of galaxies and cosmology.

PHY 4611-2 Computational Physics I (0 + 4)
Prerequisites: PHY 2811, PHY 2821, MTH 3420, satisfaction of all Level I and Level II General Studies requirements and senior standing or consent of instructor.
This course introduces more advanced methods of computational physics. Several complex physical phenomena are modeled numerically. Topics include non-linear second order differential equations associated with Newton's second law, partial differential equations associated with the wave equation, heat diffusion, Schrödinger's equation, and methods of fitting and analyzing data. (Senior Experience)

PHY 4620-2 Computational Physics II (0 + 4)
Prerequisites: PHY 4611 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 3811 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, satisfaction of all Level I and Level II General Studies course requirements, senior standing, or consent of instructor
This course provides laboratory work at the advanced undergraduate level. Individual student projects are emphasized. (Senior Experience)

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 3811
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 4921-1 **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: Variable Topics (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: Variable Topics (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 **Land Use, Culture and Conflict (3 + 0) (GEG 3300, NAS 3300)**
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: Variable Topics (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 introduce students to the basic principles and theoretical models underlying the practice of counseling psychology. Ethical issues and multicultural perspectives associated with the practice of counseling psychology will be emphasized. The course will also cover the practice of counseling psychology with children, families, and groups.

PSY 3170-3
(WMS 3170) **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. Credit will be granted for only one prefix: PSY or WMS. (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 or PSY 2270 or SOC 3100
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 or PSY 2270 or SOC 3100
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 3360-1 Kids' Brains: Healthy Connections for the Future (0 + 2)
Prerequisite: PSY 1001
Students will be required to attend all sessions of the two-day conference, entitled "Kids' Brains: Healthy Connections for our Future" sponsored by MSCD and presented on campus in late spring. Students will be required to complete a paper integrating their experiences at the conference with current peer-reviewed data.

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 is 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 human 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 in-depth overview of contrasting theoretical approaches to the explanation, prediction, and control of violent and aggressive behaviors, including psychobiological, radical behaviorism, social learning, cognitive social learning, and psychopathological approaches. Specific behavioral foci include youth violence, criminal violence, inner city gang violence, white-collar aggression, combat, terrorism, sexual violence, self-mutiliation, etc., from both legal and psychological perspectives. This course explores socialization systems leading to the development of aggressive and violent behavioral tendencies and factors facilitating the maintenance of these dispositions. Prevention and intervention strategies are considered.

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 1001 and PSY 3310
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: BIO 1000 or equivalent, PSY 1001, and PSY 3310
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 and evaluate the major theories of abnormal behavior: biological, behavioral, psychodynamic, cognitive and humanistic. The course provides a description of the behavior patterns defined as abnormal and examines classification systems and assessment procedures. Students will examine causal models of abnormal behavior from an integrated systems approach. Biological, psychological, and social treatments of psychological disorders are also discussed and evaluated. Classification, etiology, and treatment will be examined using case studies.

PSY 3700-3 Psychology of Group Prejudice (3 + 0) (AAS 3700/CHS 3700/WMS 3700)
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 3920-3 Women's Health Issues (3 + 0) (SOC 3920, HES 3920, WMS 3920)
Prerequisites: WMS 1001 or SCOC 1010 or HES 1050 or PSY 1001
This course will give students the opportunity to focus on health issues specific to women and the challenges historically faced by women in the health care arena. This course explores feminist, biological, psychological, and sociological factors in women's health within a global context.

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, and PSY 3310
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 PSY 3310
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 1001, and PSY 3310
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; Completion of PSY 2320 and a minimum grade of B in both PSY 2310 and PSY 2320
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 (SPSS) to perform the necessary statistical tests. Emphasis will be on understanding, application, and interpretation of 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, completion of at least 33 hours in human development major and PSY 3280
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 (1 + 4)
Prerequisites: fifteen semester hours of psychology and 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. During the seminar portion of the course, students will learn about preparing a learning environment, performing textbook selection, and writing materials required for teaching. Students will also be given guidance on job/graduate school preparation. Students may take the course only once for credit but may later do a two-credit independent study with a different supervising professor.

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 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 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. Principles of universal design for curriculum accessibility are addressed.

SED 3650-3 **Curriculum and Content Standards (3 + 0)**
Prerequisite: SED 3600
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 and Medical Aspects of Disabilities (2.5 + .5)**
Prerequisites: SED 3600
This course provides an overview of the multidisciplinary needs of individuals with physical, communicative, cognitive and sensory disabilities. Emphasis is given to explaining how medical needs impact educational experiences. Principles of Universal Design for Learning (UDL) will be addressed. Teacher candidates must complete a 15-hour field experience in an assigned public school that provides services for students with severe disabilities.

SED 3750-3 **Assessment, Methods, and Assistive Technology for Severe Disabilities (2 + 1)**
Prerequisites: SED 3600, SED 2200, SED 3700
This course is designed to introduce pre-service teachers to assessment, curriculum and instruction for students with severe disabilities. Focus will be given to including students in their neighborhood shcools, home,work, and community. The course also emphasizes the selection and efficacy of assistive device technologies. A minimum 45-hour, field based experience is required.

SED 3800-3 **Differentiated Instruction for Mathematics and Literacy (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. A minimum 45-hour, supervised field-based experience is required. A component of the teacher work sample is produced to demonstrate developing skills.

SED 4050-3 **Evaluation and Program Planning (2.5 + .5)**
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: SED 3600, SED 3650, SED 3800, 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 45 hours of field-based experience in a secondary 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 the management process in the classroom from a decision-making perspective. The use of systematic behavioral assessments, functional behavior assessment plans, and intervention strategies such as social skill development are emphasized. Teacher candidates are prepared to apply Universal Design for Learning (UDL) principles and management decisions in diverse contexts that include both general and special education classes.

SED 4300-3 Assessment and Methods for Emotional/Behavioral Disorders (2 + 2)
Prerequisites: SED 2200, SED 3600, SED 4250
This course is designed for teacher candidates to learn how to select, adapt, and use instructional interventions and strategies with students with emotional and behavioral disorders (E/BD) in a variety of settings. Students are required to apply knowledge and skills in a 45-hour field-based experience. Theoretical approaches, screening/identification, educational placement considerations, and assessment and evaluation issues will be addressed. In addition, specific categories of disordered behavior such as bipolar, depression, anxiety, oppositional defiant disorders, schizophrenia, and childhood psychosis will be discussed.

SED 4400-2 Issues in Special Education (2 + 0)
Prerequisites: EDT 2890, RDG 3110, SED 2200, SED 2400, SED 2700, SED 2800, SED 3600, SED 3700, SED 3800, SED 4050, SED 4200, SED 4250, or permission of instructor
This course focuses on current and emerging issues in the field of special education.

SED 4430-3 Assessment, Instruction & Collaboration Practicum: Elementary (1 + 16)
Prerequisites: SED 2200, SED 3600, SED 3650, SED 3700, SED 3800, SED 4050, SED 4200, SED 4250, SED 4430 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 disabilities. 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. (Senior Experience)

SED 4440-3 Assessment, Instruction & Collaboration Practicum: Secondary (1 + 16)
Prerequisites: SED 2200, SED 3600, SED 3650, SED 3700, SED 3800, SED 4050, SED 4250
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. (Senior Experience)

SED 4490-6,12 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 elementary public or private school that provides teacher candidates responsibility for teaching an identified group of learners with exceptionalities. 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 4500-6,12 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 secondary public or private school that provides teacher candidates responsibility for teaching an identified group of learners with exceptionalities. 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 cocietal 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
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)

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 3660-3 **Women and Poverty (3 + 0) (SOC 3660, WMS 3660)**
Prerequisites: SWK 1010, SWK 1020 or permission of instructor
This course introduces the student to the relationship between gender and poverty and will examine the underlying causes of the "feminization of poverty" in the United States. Social, economic, age-based and ethnic factors will be explored in detail. The differences between prevailing stereotypes and current realities will be highlighted.

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 3920-3 Women's Health Issues (3 + 0) (PSY 3920, HES 3920, WMS 3920)
Prerequisites: WMS 1001 or SCOC 1010 or HES 1050 or PSY 1001
This course will give students the opportunity to focus on health issues specific to women and the challenges historically faced by women in the health care arena. This course explores feminist, biological, psychological, and sociological factors in women's health within a global context.

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 **Conversational Spanish for 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 **Conversational Spanish for 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 **Conversational Spanish for 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 **Conversational Spanish for 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 **Conversational Spanish for 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 **Conversational Spanish for 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 **Conversational Spanish for 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 Conversational Spanish for 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 2110 or two or three years of high school Spanish
This intermediate course reviews and strengthens 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 Cultural Crossroads: France, Germany, Spain (3 + 0) (FRE 3050, GER 3050, MDL 3050)
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 Cinema (2 + 2)
Prerequisite: SPA 2320 or LAS 2810 or permission of instructor
This 3000-level course, a survey of recent Latin American film, is interdisciplinary and cross-cultural, emphasizing the socio-economic and political issues (race, gender, sex, and identity issues) central to the development of Latin American Cinema. This course is suitable for non-speakers of Spanish and is designed to introduce students to the cinematic work of a number of Latin American film artists or movements by discussing them from a variety of perspectives (narrative, rhetoric, aesthetics, film language). This course is designed to heighten perceptual skills by viewing films and increase critical understanding of the ways films function as visual discourse. Students in the SPA major program at the time the course is taken will complete all work in Spanish.

SPA 3800-1-15 International Advanced Spanish (1-15 + 0)
Prerequisite: upper-division standing in Spanish or equivalent
This course is designed to recognize upper-division study in language, culture and literature in a study-abroad setting. This advanced study in Spanish uses a variety of methods and includes reading, writing and discussion seminars in Spanish.

SPA 4010-3 Advanced Spanish Writing and Grammar I (3 + 0)
Prerequisite: SPA 3140 or equivalent, or permission of instructor
This course is designed to afford the student of Spanish an overall acquaintance with contemporary grammatical analysis and terminology, in order to promote and enhance the student's sensitivity regarding the syntactical structure of the Spanish oral and written modes of expression. Classes are conducted in Spanish.

SPA 4020-3 Advanced Spanish Writing and Grammar II (3 + 0)
Prerequisite: SPA 4010 or equivalent, or permission of instructor
This course is an intensive study of Spanish idiomatic expressions and selected vocabulary to strengthen the student's language skills, with emphasis on written style and on the understanding of the Spanish syntax. The main purpose of this course is to enable the student to manipulate the target language with accuracy, elegance and assertiveness. Classes are conducted in Spanish.

SPA 4110-3 Contemporary Spanish Literature (3 + 0)
Prerequisite: SPA 3250
This course involves reading and analysis, through discussion and writing, of representative works of contemporary Spanish literature. The course affords students an opportunity to explore changes in cultural development in Spain from the end of the Civil War until the present. This course is 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 3250 or permission of instructor
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 **American Sign Language I (3 + 0) (EDU 1610, MDL 1610)**
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 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 develop-mental 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *(Offered 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. *((Offered 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 Industrial Design Department at 303-556-2916*

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)
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)
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)
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)
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 3660-3 **Women and Poverty (3 + 0) (SOC 3660, WMS 3660)**
Prerequisites: SWK 1010, SWK 1020 or permission of instructor
This course introduces the student to the relationship between gender and poverty and will examine the underlying causes of the "feminization of poverty" in the United States. Social, economic, age-based and ethnic factors will be explored in detail. The differences between prevailing stereotypes and current realities will be highlighted.

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.

THEATRE

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, & 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, & 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.

TEACHER IN RESIDENCE

TIR 4491-10 **Teacher in Residence: Educational Theory and Methods (5 + 0)**
Prerequisites: must hold a Baccalaureate degree from an accredited institution and have been hired by a MSCD partner school district for employment in the content area in which the candidate can meet grade level and content licensure requirements under the Teacher in Residence legislation, S.B. 99-154
Corequisite: TIR 4492
Teacher in Residence candidates learn appropriate educational practices in management of the learning environment, short- and long-range planning, assessment and pedagogy to meet the Colorado Performance-Based Standards for Teachers and licensure requirements. Candidates will apply content knowledge and pedagogical strategies with appropriate discipline and management practices in assigned classrooms to facilitate learning and improve student achievement in the advanced field experience TIR 4492. TiR candidates will address the needs of diverse learners (gender, ethnicity, English language learners, exceptional learners, socioeconomic differences, etc.) in different contexts as reflected in daily decision-making and documented by direct observation and selected artifacts. Instruction includes required readings, articles, field-based examples, student-centered instructional tasks, classroom interaction and analysis to meet proficient level of performance in the Colorado Performance-Based Standards for Teachers. Candidates will learn about and practice selected theories and programs in discipline, management, and pedagogy. Coaching and feedback as strategies are used to support the development of TiR candidates in the classroom.

TIR 4492-20 **Teacher in Residence Program: Advanced Field Experience (0 + 40)**
Prerequisites: must hold a Baccalaureate degree from an accredited institution and have been hired by a MSCD partner school district for employment in the content area in which the candidate can meet grade level and content licensure requirements under the Teacher in Residence legislation, S.B. 99-154
Corequisite: TIR 4491
Teacher in Residence candidates put educational theory into practice as a classroom teacher in the field to meet the Colorado Performance-Based Standards for teachers and licensure requirements. This course is the advanced field experience for TIR 4491. Candidates will apply content knowledge and pedagogical strategies with appropriate discipline and management practices in assigned classrooms to facilitate learning and increase student achievement. TiR candidates will address the needs of diverse learners (gender, ethnicity, English language learners, exceptional learners, socioeconomic differences, etc.) in different contexts as reflected in daily decision-making and will be assessed by direct observation and selected artifacts. Field experiences include application of methodology introduced in TIR 4491 to meet proficient levels of performance in the Colorado Performance-Based Standards for Teachers. Candidates will model and practice selected theories and programs in discipline, management, and pedagogy.

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 to Women's Studies (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. This course also 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 **Women of Color (3 + 0) (AAS 2100, CHS 2100, ICS 2100, NAS 2100)**
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 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 literacy 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 3170-3
(PSY 3170) **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. Credit will be granted for only one prefix: WMS or PSY. (Multicultural)

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

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, equal-

ity, social justice, social policy and practice will be reviewed and discussed. Credit will be granted for only one prefix: WMS or SWK.

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. (General Studies—Level II, Arts and Letters)

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 3660-3 Women and Poverty (3 + 0) (SOC 3660, SWK 3660)
Prerequisites: SWK 1010, SWK 1020 or permission of instructor
This course introduces the student to the relationship between gender and poverty and will examine the underlying causes of the "feminization of poverty" in the United States. Social, economic, age-based and ethnic factors will be explored in detail. The differences between prevailing stereotypes and current realities will be highlighted.

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 Psychology of Group Prejudice (3 + 0) (AAS 3700/CHS 3700/PSY 3700)
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 3910-3 (PHI 3910) Women's Spirituality (3 + 0)
Prerequisites: WMS 1001 or PHI 1010
This course will explore the philosophical basis for and nature of women's spirituality. Political, social, and cultural aspects of the women's spirituality movement will be analyzed both within and beyond traditional institutionalized religion; facets of women's individual spiritual growth and development express themselves in a variety of ways, and this course seeks to examine emotional, cognitive, somatic, and physical aspects. Students will also have opportunities to participate in the art, music, and rituals associated with various traditions and to create projects that will illuminate their personal experiences.Credit will be granted for only one prefix: WMS or PHI.

WMS 3920-3 Women's Health Issues (3 + 0) (SOC 3920, PSY 3920, HES 3920)
Prerequisites: WMS 1001 or SCOC 1010 or HES 1050 or PSY 1001
This course will give students the opportunity to focus on health issues specific to women and the challenges historically faced by women in the health care arena. This course explores feminist, biological, psychological, and sociological factors in women's health within a global context.

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 4830-3
(MGT 4830) 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. Credit will be granted for only one prefix: WMS or MGT. (Multicultural; 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.

ADMINISTRATION
METROPOLITAN STATE COLLEGE *of* DENVER

The Metropolitan State College of Denver is governed by the Board of Trustees–Metropolitan State College of Denver. The members are appointed by the Governor of Colorado and approved by the Senate.

BOARD OF TRUSTEES	Date of First Appointment	Present Term Expires
Bruce Benson, Chair, Denver	2002	2006
Maria Garcia Berry, Denver	2003	2007
Virginia "Gin" Butler, Denver	2002	2007
Alex Cranberg, Greenwood Village	2002	2006
Mark Martinez, Arvada	2002	2008
John Osborn, Englewood	2003	2007
Adele Phelan, Denver	2002	2008
Ann Rice, Vice Chair, Englewood	2002	2006
Gene Saxe, Faculty, MSCD	2002	2005
Brian Glotzbach, Student, MSCD	2005	2006
Sean Tonner, Littleton	2003	2007

Office of the President

President . . . . . Stephen M. Jordan, Ph.D.
Executive Assistant to the President . . . . . Teri Bokn, B.S.
General Counsel . . . . . Lee Combs, J.D.
Executive Director, Equal Opportunity . . . . . Percy A. Morehouse, Jr., Ph.D.
Associate Director, Equal Opportunity . . . . . Charles F. Batey, Jr., Ed.S.
Interim Assistant Vice President for Communications . . . . . Catherine B. Lucas, B.A.
Special Assistant to EEO . . . . . Laura Lempe, M.A.
Interim Vice President for Academic Affairs . . . . . Joan M. Foster, Ph.D.
Interim Vice President for Finance and Administration . . Natalie Lutes, M.P.A.
Vice President for Institutional Advancement . . . . . Vacant
Interim Vice President for Student Services . . . . . Karen Raforth, Ph.D.
Director of Alumni Relations/Executive Director of Alumni Association . . . . . Cherrelyn Napue, B.A.
Interim Vice President for Information Technology . . . . . George Middlemist, MSBA
Interim Director of Marketing and Creative Services . . . . . Vacant

Office of the Vice President for Academic Affairs

Interim Vice President for Academic Affairs . . . . . Joan M. Foster, Ph.D.
Associate Vice President for Academic Affairs—
Personnel . . . . . David Conde, Ph.D.
Interim Associate Vice President for Academic Affairs—
Curriculum and Programs . . . . . Linda Curran, Ph.D.
Coordinator, North Central Accreditation
Self-Study Process . . . . . Frieda K. Holley, Ph.D.
Director of Academic Advising . . . . . Lisa Ransdell, Ph.D.
Director of Cooperative Education Program . . . . . Susan Lanman, Ph.D.
Director of Center for Individualized Learning . . . . Maureen Lancaster, Ed.D.
Director of Honors Program . . . . . Adolph Grundman, Ph.D.
Director of Program Review . . . . . Richard Wagner, Ph.D.
Director of Metro Education Ventures. . . . . Carol Svendsen, M.A.
Technical Coord., Center for Academic Technology . . Charles Hathaway, M.S.
Director of Sponsored Programs . . . . . Betsy Zeller, Ph.D.
Interim Executive Director of the Center for Visual Art. . . . Greg Watts, M.F.A.

Office of the Vice President for Administration and Finance

Interim Vice President for Administration and Finance . . Natalie Lutes, M.P.A.
Assistant Controller . . . . . Jinous Lari, B.S.
Assistant Director of Institutional Research . . . . . Ellen Boswell, B.S.
Director of Human Resources . . . . . Tamy Calahan, M.S.
Interim Director of Budgets. . . . . Stephanie Moran, B.A.
Director of Intercollegiate Athletics . . . . . Joan McDermott, Ed.D.

Office of the Vice President for Information Technology

Interim Vice President for Information
Technology. . . . . George Middlemist, MSBA
Interim Assistant Vice President for Information
Technology . . . . . Yvonne Flood, MSCIS
Director of Application Services . . . . . Rick Beck, B.S.
Director of Server Support . . . . . Rick Cisneros, MSCIS
Director of Web Services. . . . . Ben Zastrocky, MSIS
Director of Desktop Support & Network Serv. . . . Sharon McGee-Canady, B.A.

Office of the Vice President for Institutional Advancement

Vice President for Institutional Advancement. . . . . Vacant
Interim Executive Director of the MSCD Foundation . . . . . .Vacant
Director of Development . . . . . Brenda W. Byrne, B.A.
Interim Director of Development . . . . . Kendra Brooks, M.S.W.

Director of Development Research . . . . . Vacant
Director of Private Grants . . . . . David Rein, M.S.
Manager of Information Resources for Development
and Alumni Relations . . . . . .Jenny Schwem, B. A.

Office of the Vice President for Student Services

Interim Vice President for Student Services . . . . . Karen Raforth, Ph.D.
Fiscal Manager, Student Services . . . . . Arliss Sunderwirth Webster, M.A.
Assistant to the Vice President for Retention Projects . . . .Kate B. Lutrey, B.A.
Interim Associate Vice President and Dean of
Student Life . . . . . Vacant
Director of Admissions . . . . . William Hathaway-Clark, M.A.
Director of Financial Aid . . . . . Cindy Hejl, B.S.
Registrar . . . . . Thomas R. Gray, M.S.
Director of Assessment and Testing . . . . . Paul Myskiw, B.A.
Director of Career Services . . . . . Gary Boley, M.Ed.
Director of The Access Center. . . . . Greg Sullivan, M.S.
Director of Immigrant Student Services/ESL . . . . . Patti Lohman, M.A.
Director of High School Upward Bound. . . . . Paulette McIntosh, B.A.
Director of GLBT Student Services . . . . . Karen Bensen, M.S.W.
Director of the Veterans Upward Bound Program . . . . . Leroy Chavez, B.A.
Director of Student Intervention Services . . . . . .Betty Vette, B.A.
Director of New Student Orientation . . . . . .Kimberly Clark, M.S.
Director of Student Support Services . . . . . .Patricia Trotman, M.A.
Interim Assistant Dean of Student Life . . . . . Vanessa Anderson, M.Ed.
Student Judicial Officer/Assistant Dean of Students. . . . . .Emilia Paul, M.A.
Director of Campus Recreation . . . . . Tony Price, B.S.
Director of the Counseling Center. . . . . Gail Bruce-Sanford, Ph.D.
Director of Student Activities . . . . . Zav Dadabhoy, Ph.D.
Director of the Health Center at Auraria . . . . . Steve Monaco, M.A.
Director of Student Publications . . . . . Vacant
Interim Director of Student Academic Success. . . . . Janell Lindsey, M.S.

ACADEMIC ADMINISTRATORS

School of Business

Interim Dean . . . . . John Cochran, Ph.D.
Interim Assistant to the Dean . . . . . Ann B. Murphy, Ph.D.

Department Chairs

Accounting . . . . . Barbara Uliss, Ph.D.
Computer Information Systems . . . . . Abel Moreno, Ph.D.
Economics . . . . . Steven Call, Ph.D.
Finance . . . . . Su-Jane Chen, Ph.D.
Management . . . . . Larry Lopez, J.D.
Marketing . . . . . Clayton Daughtrey, Ph.D.

School of Letters, Arts and Sciences

Interim Dean . . . . . Kenneth Keller, Ph.D.
Interim Associate Dean . . . . . Hal Tamblyn, D.M.A.
Interim Assistant Dean . . . . . Tara Tull, M.A.

Department Chairs

African American Studies . . . . . Ronald Stephens, Ph.D.
Art . . . . . Greg Watts, M.F.A.
Biology . . . . . Joan L. Foster, Ph.D.
Chemistry . . . . . Charles G. Tindall, Ph.D.
Chicano Studies . . . . . Vincent C. de Baca., Ph.D.
Communication Arts and Sciences . . . . . Marilyn A. Hetzel, Ph.D.
Earth and Atmospheric Sciences . . . . . Kenneth Engelbrecht, Ph.D.
English . . . . . Joan R. Griffin, Ph.D.
History . . . . . Stephen J. Leonard, Ph.D.
Mathematical and Computer Sciences . . . . . Steven J. Beaty, Ph.D.
Modern Languages . . . . . Rodolfo Garcia, Ph.D.
Music . . . . . Walter Barr, D.M.E.
Philosophy . . . . . David Sullivan, Ph.D.
Physics . . . . . Sidney A. Freudenstein, Ph.D.
Political Science . . . . . Robert Hazan, Ph.D.
Psychology . . . . . Ellen Susman, Ph.D.
Social Work . . . . . Virginia Cruz, Ph.D.
Sociology and Anthropology . . . . . Martha Shwayder, Ph.D.
Director of the Institute for Women's Studies & Services . . Jodi Wetzel, Ph.D.
Director of the Center for Mathematics, Science and
Environmental Education . . . . . Larry S. Johnson, Ph.D.

Director of the English Composition Program . . . . . Cindy Carlson, Ph.D.
Director of the Family Center . . . . . Virginia Cruz, Ph.D.
Director of the First Year Program . . . . . Renee Ruderman, M.A.
Interim Director of the Writing Center . . . . . Brenda Wright, M.A.

School of Professional Studies

Interim Dean . . . . . .Sandra Haynes, Ph.D.
Interim Associate Dean . . . . . Kathy Heyl, M.S.

Department Chairs

Aviation and Aerospace Science . . . . . Jeff Forrest, M.S.
Criminal Justice and Criminology . . . . . Joseph G. Sandoval, J.D.
Engineering Technology . . . . . Keith Norwood, M.S.
Health Professions . . . . . Nancy Shanks, Ph.D.
Hospitality, Meeting and Travel Administration . . . . . John Dienhart, Ph.D.
Human Performance, Sport and Leisure Studies. . . . . Marc Rabinoff, Ed.D.
Human Services . . . . . Shawn Worthy, Ph.D.
Industrial Design . . . . . .John Schmidt, Ed.D.
Director of the Center for Addiction Studies . . . Lynann Butler-Sanchez, M.A.
Director of the Center for
High Risk Youth Studies . . . . . .Lynann Butler-Sanchez, M.A.
Director of the Center-Nonprofit Organization Admin. . . Kelly Felice, M.S.M.
Nursing. . . . . Nancy Kiernan Case, Ph.D.
Teacher Education . . . . . Kathleen Milligan, Ph.D.
Technical Communications and Media Production. . . . . Robert Amend, M.A.
Office of Clinical Services. . . . . Leslie Swetnam, Ph.D.
Accreditation Coordinator . . . . . William Wiener, Ph.D.

FACULTY

Abbasi, Nishat
B.Com., Karachi University, Pakistan; M.B.A., Institute of Business Administration, Pakistan; M.S., Ohio University at Athens; Ph.D., University of Colorado; Associate Professor of Accounting

Abendroth, Lisa
B.F.A., Virginia Commonwealth University; M.F.A., Rhode Island School of Design; Associate Professor of Art

Agarwal, Avinash
B.S., India Institute of Technology; M.S., Southern Illinois University; Assistant Professor of Electrical Engineering Technology

Airsman, Linda A.
B.A., M.A., Ph.D., University of Utah; Professor of Sociology
Akacem, Mohammed
B.A., Portsmouth Polytechnic; M.A., Ph.D., University of Colorado; Professor of Economics

Alejano-Steele, Ann Janette
B.A., University of Michigan; M.A., Ph.D., Michigan State University; Associate Professor of Psychology and Women's Studies

Altherr, Thomas L.
B.A., SUNY College at Fredonia; M.A., Ph.D., Ohio State University; Professor of History

Altemueller, Lisa
B.A., University of North Carolina; M.A., Appalachian State University; Ed.D., University of Northern Colorado; Assistant Professor of Special Education

Amend, Robert H.
B.A., University of Indiana; M.A., University of Northern Colorado; Professor of Technical Communications

Anderson, Peggy
B.S., University of Florida; B.A., Flagler College; M.Ed., The Citadel; Ph.D., University of Denver; Professor of Early Childhood and Elementary Education (Special Education)

Anderson, Myron
B.A.,Virginia Polytech Institute and State University; M.S., Radford University; Ph.D., Virginia Polytech Institute and State University; Assistant Professor of Teacher Education

Angeletti, Charles E.
B.A., M.A., University of Tulsa; Ed.D., University of Northern Colorado; Professor of History

Ansburg, Pamela I.
B.A., University of California-Riverside; M.A., University of Nevada-Reno; Ph.D., University of Illinois–Chicago; Associate Professor of Psychology

Aragon, Antonette
B.A., Colorado College; M.A., Colorado State University; Ph.D., Colorado State University; Assistant Professor of Teacher Education/Secondary Education

Aubrey, James
B.S., U.S. Air Force Academy; M.A., Northwestern University; Ph.D., University of Washington; Professor of English

Bacigalupi, Tadini
B.A., Colorado College; M.A., Adams State College; Ph.D., Colorado State University; Professor of Sociology

Bailey, Nancy S.
B.A., Colorado Women's College; M.S., California State University-Fullerton; Ed.D., University of Colorado; Professor of Reading

Balazs, Brent
B.S., U.S. Air Force Academy; M.S., North Carolina State University; M.A., Naval War College; Associate Professor of Aviation and Aerospace Science

Balogh, Zsuzsa
B.S. and M.S., Technical University of Budapest; Assistant Professor of Civil Engineering Technology

Barcelo, Margarita T.
B.A., Santa Clara University; M.A., Ph.D., University of California-San Diego; Assistant Professor of English and Chicano Studies

Barr, Walter L.
B.S., Arizona State College; M.A., Northern Arizona University; D.M.E., Arizona State University; Associate Professor of Music

Barrows, Russell
B.S., Metropolitan State College of Denver; M.S., University of Idaho;Ph.D., University of Denver; Assistant Professor of Chemistry

Basham, Mark E.
B.A., Carleton College; M.S., Ph.D., University of Rochester; Assistant Professor of Psychology

Baxendale, R. William
B.A., Hiram College; M.A., State University College at Geneseo; Ph.D., University of Kansas; Associate Professor of Biology

Beaty, Steven J.
B.S., M.S., and Ph.D., Colorado State University; Professor of Mathematical and Computer Sciences

Bettermann, Larry D.
B.A., Concordia Teachers College; M.A. and Ed.D., Northern Illinois University; Associate Professor of Teacher Education

Bisio, Kenn
A.A., Skyline College; B.A., San Jose State University; M.F.A., Vermont College of Norwich University; Assistant Professor of Journalism

Boneh, Shahar
B.S., Tel Aviv University; M.S., University of California, Santa Barbara; Ph.D., University of California, Santa Barbara; Associate Professor of Mathematical and Computer Science

Boylan, Heather
B.A., DePauw University; M.A., Xavier University; Ph.D., University of Colorado; Assistant Professor of Early Childhood Education

Branch, Charles V.
B.S., Kansas State University; M.S., University of West Florida; Ed.D., University of Florida; Professor of Education and Human Services

Breitenbach, Robert B.
B.A., University of Cincinnati; M.B.A., Ph.D., Ohio State University; J.D., University of Oklahoma; Professor of Management

Broida, Jane K.
B.S., M.S., State University College of New York; Ed.D., Temple University; Professor of Leisure Studies

C. de Baca, Vincent Z.
B.A., M.A., Ph.D., University of California-San Diego; Associate Professor of History

Caine, Jennifer
B.S., University of Canterbury; M.S., University of Colorado; Associate Professor of Aviation and Aerospace Science

Caiozzi, Nhu
B.S., Illinois State University; M.S., Illinois State University; Ph.D., University of New Mexico; Assistant Professor of Human Performance and Sport

Call, Steven T.
B.S., Brigham Young University; M.A., Ph.D., Indiana University; Professor of Economics

Camp, Paul
B.S., Truman State University; M.S., University of Missouri; Ph.D., Purdue University; Assistant Professor of Finance

Campa, Arthur L., Jr.
B.A., University of Denver; M.A., Ph.D., University of Colorado; Associate Professor of Anthropology

Carlson, Cindy
B.A., University of Colorado, Boulder; J.D., University of Colorado Law School; Ph.D., Columbia University; Associate Professor of English

Chang, Donald T.
B.B.A., National Chengchi University-Taiwan; M.B.A., Ph.D., University of Missouri-Columbia; Associate Professor of Marketing

Chen, Su-Jane
B.B.A., National Chengchi University–Taiwan, M.B.A., Ph.D., University of Missouri–Columbia; Professor of Finance

Choi, Ducksang
B.S., Seoul National University; M.B.A., University of Tennessee; D.B.A., Mississippi State University; Associate Professor of Finance

Christian, Bruce A.
B.S., M.S., Ohio State University; Associate Professor of Aviation and Aerospace Science

Chu, Antonio Kin-On
B.A., Cornell University; M.A., Ph.D., University of Wisconsin-Madison; Associate Professor of Philosophy

Church, Cynthia
B.S., Kent State University; M.A., University of Northern Colorado; Ph.D., University of Colorado; Associate Professor of Biology

Clark, Joseph P.
B.A., University of Colorado; M.S.E., University of Colorado; Assistant Professor of Electrical Engineering Technology

Clay, Gudrun
B.A., University of Denver; M.A., Ph.D., University of Colorado; Professor of German

Cochran, John Paul
B.A., Metropolitan State College; M.A., Ph.D., University of Colorado; Professor of Economics; Dean of the School of Business

Conde, David
B.A., University of Northern Colorado; M.A., Ph.D., University of Kansas; Professor of Modern Languages

Cormier, Russell A.
B.S., University of Massachusetts; M.S., Ph.D., University of Rochester; Professor of Chemistry

Cornell, Clare Charles
B.F.A., Arizona State University; M.F.A., California Institute of the Arts; Assistant Professor of Art

Corona, Thomas J.
B.S., Rutgers University; M.S., Colorado State University; Associate Professor of Meteorology

Crater, Theresa L.
B.A., University of North Carolina at Greensboro; M.A., Ph.D., University of Washington; Associate Professor of English

Cresswell, Herbert F.
B.M.E., Southwest Texas State University; M.A., University of Texas at Tyler; Assistant Professor of Hotel Administration

Cronoble, James M.
B.A., University of Oklahoma; M.S., Ph.D., Colorado School of Mines; Associate Professor of Geology

Crosser, Rick L.
B.S., M.S., Colorado State University; Ph.D., Oklahoma State University; C.P.A; Professor of Accounting

Cruz, Virginia
B.A., California State University; M.S.W., D.S.W., University of California-Los Angeles; Associate Professor of Social Work

Cummins, Jack D.
B.A., Western State College; M.S., Ph.D., University of New Mexico; Professor of Chemistry

Cunningham, Eldon L.
B.F.A., Wichita State University; M.F.A., University of Colorado; Professor of Art

Curl, Layton
B.A., Lyon College, M.A., Ph.D., University of Mississippi; Assistant Professor of Psychology

Curran, Catherine
B.A., Trinity University; M.S., University of New Mexico; Ph.D., University of Colorado; Professor of Speech Communication, Language, Pathology, Audiology

Daughtrey, Clayton L.
B.S., University of Richmond; M.S., Georgia Southern University; Ed.D., University of Northern Colorado; Associate Professor of Marketing

Dawson, Sylvia
B.S.,University of Missouri-Columbia;M.S., Regis University; Assistant Professor of Journalism

De La Torre, Angelina
B.A., San Fernando Valley College; J.D., University of California; Associate Professor of Criminal Justice and Criminology

Deacon, Sheila
B.A., University of Western Ontario; B.Ed., Althouse College; M.Ed., Delta State University; Ph.D., University of Texas; Assistant Professor of Early Childhood and Elementary Education

Dewey, Fred M.
B.S., Colorado State University; Ph.D., University of Colorado; Professor of Chemistry

Dienhart, John R.
B.S., M.S., Purdue University; Ph.D., Kansas State University; Associate Professor of Hospitality, Meeting and Travel Administration

Discenza, Suzanne
B.S., Oklahoma State University; M.S., Oklahoma Health Sciences Center; A.B.D., University of Colorado; Assistant Professor of Health Care Management

Doe, Sandra M.
B.A., Doane College; M.A., University of Denver; Ed.D., University of Northern Colorado; Professor of English

Doerr, Richard P.
B.A., Macalester College; M.A., University of Illinois; Ph.D., University of Colorado; Associate Professor of Spanish

Donovan, George S.
B.S., University of Massachusetts; M.A., Ph.D., University of Colorado; Professor of Mathematical and Computer Sciences

Dove, James B.
B.S., University of California–San Diego; M.S., Ph.D., University of Colorado; Associate Professor of Physics

Drake, James
B.A., University of California-Berkeley; M.A., Ph.D., University of California-Los Angeles; Associate Professor of History

Emerson, William D.B.A., Kansas State College; M.A., University of Illinois; Ph.D., University of Utah; Professor of Mathematical and Computer Sciences

Engelbrecht, Kenneth W.
B.S., University of Wisconsin, Madison; M.A., Northern Michigan University, Marquette; Ph.D., University of Nebraska, Lincoln; Professor of Geography

Erickson, Erick Lee
B.A., University of Montana; M.A., Ph.D., University of New Mexico; Professor of Economics

Farkas, Paul D.
B.A., St. Edward's University; M.A., University of New Orleans; Ph.D., Louisiana State University; Associate Professor of English

Farnham, Bruce B.
B.S., University of New Mexico; M.S., New Mexico State University; Ph.D., University of Arizona; Professor of Biology

Faurer, Judson C.
B.S., U.S. Military Academy; M.B.A., Ohio State University; Ph.D., University of Denver; Professor of Management

Ferrell, Rebecca V.
B.S., M.S., Southwest Missouri State University; Ph.D., University of Missouri; Professor of Biology

Fiofori, Ferdinand
B.S., M.S., San Jose State University; Ph.D., University of Colorado; Assistant Professor of Marketing

Fleisher, Arthur A.
B.A., San Diego State University; M.A., Ph.D., George Mason University; Professor of Economics

Flemon, Wilton
B.S., Grambling College; M.S., Atlanta University; Ph.D., University of Denver; Professor of Chemistry

Fontanez, Carlos J.
B.A., M.A., Adams State College; Ed.D., University of Northern Colorado; Assistant Professor of Psychology

Forns-Broggi, Roberto
B.A., M.A., Pontifica University Catolica del Peru; Ph.D., Arizona State University; Associate Professor of Spanish

Forrest, Jeffrey
B.A., University of North Carolina; B.S., Metropolitan State College of Denver; M.A., Webster University; M.S., Embry-Riddle Aeronautical University; Associate Professor of Aviation and Aerospace Science

Foster, Joan L.M.
B.A., Metropolitan State College of Denver; M.S., Ph.D., University of Denver; Professor of Biology

Foster, Joan M.C.
B.A., M.A., Northern Illinois University; Ph.D., University of New Mexico; Professor of English; Vice President, Academic Affairs

Frederick, Elizabeth A.
B.S., Pennsylvania State University; M.B.A., Michigan State University; Ph.D., University of Maryland; Associate Professor of Management

Freudenstein, Sidney A., III
A.B., University of California; M.S., Ph.D., University of Colorado; Professor of Physics

Friot, F. Elizabeth
B.S., University of Oklahoma; M.S., State University of New York, College at Buffalo; Ph.D., University of Oklahoma; Professor of Secondary Education

Frontczak, Nancy T.
B.S., M.S., Ph.D., University of Illinois; Professor of Marketing

Fulkerson, W.M., Jr.
B.A., William Jewell College; M.A., Temple University; Ph.D., Michigan State University; Distinguished Professor of Business

Fustos, Janos
B.S., M.S., Ph.D., University of Veszprem; Professor of Computer Information Systems

Garcia, Rodolfo
B.S., Bowling Green State University; M.A., Indiana University; Ph.D., Ohio State University; Associate Professor of Spanish

Garman, George B.
B.S., Indiana University; Ph.D., Notre Dame University; Professor of Computer Information Systems

Geisler, Jerry
B.S., M.A., Central Missouri State University; Ph.D., University of Missouri-Columbia; Professor of Management

Georgiev, Iliya K.
B.S. and M.S., Technical University, Sofia Bulgaria; Ph.D., Institute of Electrical Engineering, St. Petersburg, Russia; Associate Professor of Mathematical and Computer Sciences

Germann, Clark
B.A., University of Wyoming; M.S., University of Denver; Ph.D., University of Denver; Associate Professor of Technical Communications

Gilliam, Lynde O.
B.A., North Carolina State University; M.A., Old Dominion University; Ph.D., Colorado State University; Associate Professor of Economics

Gilliard, Debora
B.S., University of Northern Colorado; M.B.A., University of Colorado at Denver; Ph.D., Arizona State University; Professor of Management

Gilmore, Don D.
B.A., M.A., Ed.D., University of Montana; Associate Professor of Mathematical and Computer Sciences

Glatz, Lawrence
B.A., University of Pennsylvania; M.A., Penn State University; Ph.D., Penn State University; Associate Professor of German

Goldstein, Tamara
B.M., Indiana University, M.M., The Juilliard School;DM.A., University of Colorado aBoulder; Assistant Professor of Music

Gorlach, Marina
B.A., M.A. (equivalent) Pedagogical Institute of Foreign Languages, Pyatigorsk, Russia; Ph.D., Ben-Gurion University, Beer-Sheva, Israel;Assistant Professor of English

Gorman, Rebecca
B.A., Dartmouth College M.F.A., Carnegie Mellon University; Assistant Professor of English

Gould, Timothy
A.B., M.A., Ph.D., Harvard University; Professor of Philosophy

Grevstad, Nels
B.S., University of Washington;M.S., Ph.D., Purdue University; Assistant Professor of Mathematical & Computer Sciences

Griffin, C. Ramon
B.S., Auburn University; M.B.A., Ph.D., Georgia State University; Associate Professor of Finance

Griffin, Joan R.
B.A., College of St. Theresa; M.A., South Dakota State University; Ph.D., University of Nebraska; Professor of English

Grundman, Adolph H.
B.A., Albion College; M.A., Western Michigan University; Ph.D., Wayne State University; Professor of History; Director of the Honors Program

Gudmundsen, Sandra
B.A., M.A., University of Montana; Ph.D., University of Colorado; Associate Professor of Philosophy

Gurka, Judith S.
B.S., Metropolitan State College of Denver; M.S., University of Colorado at Denver; Ph.D., University of Colorado at Boulder; Assistant Professor of Computer Sciences

Haga, Wayne
B.S., M.S., North Dakota State University; Ph.D., University of Northern Colorado; Associate Professor of Computer Information Systems

Hagan, Lisa
B.A., Kenyon College; M.S., Ph.D., St. Louis University; Assistant Professor of Psychology

Hagen, Monys A.
B.A., University of Minnesota; M.A., Ph.D., University of Wisconsin; Professor of History

Haley, Elsie G.
B.S., Indiana University of Pennsylvania; M.A., Ph.D., University of Denver; Professor of English

Hamilton, William T.
B.A., University of Washington; M.A., University of Maryland; Ph.D., University of Minnesota; Professor of English

Hanson, Roberta C.
B.S., B.A., Pittsburgh State University; M.B.A., University of Oklahoma; Ph.D., University of Colorado; Professor of Management

Hasz, Earl E.
B.A., Carleton College; M.A., Ph.D., University of Colorado; Professor of Mathematical and Computer Sciences

Hatcher, Anne S.
B.S., Texas Technological College; M.S., University of Kansas Medical Center; Ed.D., University of Northern Colorado; Professor of Human Services

Hathorn, John
M.B.L. University of South Africa; M.S., Ph.D.,Kent State University; Assistant Professor Department of Accounting

Haugland, Susan
B.S., Oregon State University; Ph.D., Merrill-Palmer Institute; Professor of Early Childhood Education

Haynes, Sandra
B.S., M.S., Ph.D., Colorado State University; Associate Professor of Human Services; Dean, School of Professional Studies

Hays, Clare Anne
B.S., D.V.M., Colorado State University; Professor of Biology

Hazan, Robert
Dipl., University of Grenoble, France; M.A., Illinois State University; M.A., Ph.D., University of Denver; Professor of Political Science

He, Mingli
B.S., Nanjing Aeronautical Institute; M.S., Ph.D., University of Central Florida; Associate Professor of Mechanical Engineering

Henry, Bill Conard
B.A., University of Maine-Orono; Ph.D., University of Wisconsin-Madison; Assistant Professor of Psychology

Hess, Fred
B.M.E., Trenton State College; M.M., Trenton State College;M. M., D.M.A., University of College at Boulder; Assistant Professor of Music

Hesson, John E.
B.S., American University; M.A., Ph.D., Temple University; Professor of Psychology

Hetzel, Marilyn A.
B.A., University of Illinois; M.A., Ph.D., University of Colorado; Professor of Speech Communication and Director of Theatre Arts

Heuwinkel, Mary K.
B.S., Iowa State University; M.S., University of Colorado at Denver; Ed.D., University of Northern Colorado; Assistant Professor of Early Childhood and Elementary Education

Heyl, Kathy
B.S., Kansas State University; M.S., Colorado State University; Associate Professor of Nutrition; Associate Dean, School of Professional Studies

Heyman, Ernest L.
A.B., M.Ed., Ed.D., Wayne State University; Professor of Secondary Education

Hills, Roberta Sherman
B.S., M.S., Ohio State University; Ph.D., Wayne State University; Associate Professor of Nursing

Hilton, Judith
B.A., University of Colorado–Boulder; M.A., Ed.D., University of Denver; Assistant Professor of Secondary Education

Holloway, Madison W.
B.A., Rutgers University; M.A., Ph.D., University of Colorado; Professor of Management

Holmes-Lonergan, Heather
B.A., M.S., and Ph.D., University of Florida; Associate Professor of Psychology

Holtze, Elizabeth
B.A., Grinnell College; M.A., Columbia University; Ph.D., University of Nebraska; Professor of English

Hurley-Brobst, Deborah B.A., University of Wisconsin; M.A., Marquette University; Associate Professor of Journalism

Jackowski, Mick
B.S., State University of New York at Buffalo; M.S., University of Massachusetts; Ed.D., University of Northern Colorado; Assistant Professor of Marketing

Jackson, Richard L.
B.A., J.D., University of Denver; Associate Professor of Criminal Justice and Criminology

Jensen, Carol
B.S.N., University of Colorado; B.A., Metropolitan State College of Denver; M.Ed., Northeastern State; Assistant Professor of Health Education Services

Johnson, Carl I.
B.A., M.A., University of Northern Colorado; Ph.D., University of Denver; Professor of Speech

Johnson, Larry S.
B.S., Western State College; M.S., Ph.D., University of Wyoming; Professor of Mathematical and Computer Sciences

Johnson, Russell
B.S., M.S., Iowa State University; Ph.D., Colorado State University; Associate Professor of Management

Kaersvang, Lynn
B.A., University of Colorado; M.S.W., University of Denver; Associate Professor of Social Work

Kaplan, Sheila
B.A., Hunter College-CUNY; M.A., Johns Hopkins University; Ph.D., City University of New York; Professor of History

Kassaye, W. Wossen
M.A., Ph.D., University of Illinois-Urbana; Professor of Marketing

Keller, Kenneth M.
B.A., St. Francis College; M.A., University of Colorado; Ph.D., University of Colorado; Professor of Anthropology; Dean, School of Letters, Arts and Sciences

Kent, Jonathan D.
B.A., Michigan State University; M.A., Case Western Reserve University; Ph.D., Washington University; Professor of Anthropology

Khandekar, Rajendra
B.Tech., Indian Institute of Technology; P.G.D.M., Indian Institute of Management; Ph.D., University of Kansas; Professor of Management

Kitzman, Morey
B.A., M.A., Ph.D., University of Connecticut; Associate Professor of Psychology

Klein, David W.
B.A., Southern Illinois University; M.F.A., University of Illinois; Assistant Professor of Industrial and Technical Studies

Kornelsen, Michael
B.S., University of Colorado; M.S.E., University of Northern Colorado, D.M.A., University of Colorado at Boulder; Assistant Professor of Music

Kottenstette, David T.
B.A., Regis University; M.A., University of Northern Colorado; Associate Professor of Design and Technical Theater

Krantz, Richard
B.S., St. Lawrence University; M.S., Colorado State University; Ph.D., Colorado State University; Professor of Physics

Krenetsky, John C.
B.A., Montclair State College; M.S., Ph.D., University of New Mexico; Professor of Biology

Krupar, Karen
B.S., Northern State College; M.A., Ph.D., University of Denver; Professor of Speech Communication

Kuhlmann, Kevin R.
B.S., Southern Illinois University; M.S., Embry-Riddle Aeronautical University; Associate Professor of Aviation and Aerospace Science

Kuhn, Cynthia
B.A., University of Kansas; M.A., University of Colorado at Denver; Ph.D., University of Denver; Assistant Professor of English

Kulkarni, Kishore
B.A., M.A., University of Poona; M.A., Ph.D., University of Pittsburgh; Professor of Economics

Landry, John R.
B.S., M.E., Louisiana State University; Ph.D., University of Colorado; Associate Professor of Computer Information Systems

Lang-Peralta, Linda
B.A., M.A., California State-Long Beach; Ph.D., University of California-Irvine; Associate Professor of English

Langton, Larry B.
B.A., M.A., Wichita State University; Ph.D., University of Wisconsin; Professor of English

Lanman, Susan
B.A., M.A., and Ph.D., University of Denver; Assistant Professor of History

Larsen, Gwynne E.
B.S., Metropolitan State College of Denver; M.B.A., Ph.D., University of Denver; Professor of Computer Information Systems

Latta-Kirby, Dawn
B.S., University of Georgia; M.Ed., Georgia State; Ed.D., University of Georgia; Professor of English

Laufer, Douglas M.
B.S.B.A., University of Denver; M.S., Colorado State University; Ph.D., Oklahoma State University; C.P.A.; Professor of Accounting

Ledesma, Antonio F.
B.A., Metropolitan State College of Denver; M.A., University of Northern Colorado; M.S.W., Smith College; Ph.D., University of Denver; Associate Professor of Human Services

Leggett, Wesley
B.S., Southwest Missouri State University; M.A., Drury College; Ph.D., University of Northern Colorado; Assistant Professor of Secondary Education

LeJeune, Noel
B.S., Louisiana State University; B.S., Metropolitan State College of Denver; M.C.I.S., University of Denver; Ph.D., University of Colorado at Denver; Assistant Professor of Mathematical and Computer Sciences

Lemonedes, Genia
B.S., Syracuse University; M.S., Arizona School of Health Sciences; Instructor of Human Performance and Sport

Leonard, Stephen J.
B.A., Regis College; M.A., University of Wyoming; Ph.D., Claremont Graduate School; Professor of History and Archivist

Leong, Deborah
B.A., Stanford University; M.Ed., Harvard University; Ph.D., Stanford University; Professor of Psychology

Lewis, Jeffery S.
B.A., Colorado State University; M.S., Colorado Christian University; Ph.D., Colorado State University; Assistant Professor of Marketing

Loats, James T.
B.A., Oklahoma State University; M.S., Ohio University; Ph.D., University of Colorado; Professor of Mathematical and Computer Sciences

Lockwood, Linda
B.A., Metropolitan State College; M.A., Ph.D., University of Denver; Professor of Psychology

Loeffler, Mary Ann
B.S., University of Colorado; M.A., University of Northern Colorado; Assistant Professor of Leisure Studies

Loftus, Greg
B.S., Western Michigan University; M.F.A., Wayne State University; Assistant Professor of Theatre

Lombard, J. Larry
B.S., University of Tulsa; M.S., Oklahoma State University; Ph.D., University of Arkansas; Associate Professor of Accounting

Lopez, Larry M.
B.S.B.A., University of Denver; J.D., University of Denver College of Law; Associate Professor of Management

Low, M. Edwin
B.A., M.A., Indiana State University; Ph.D., University of Colorado; Professor of English

Lucero, Aileen F.
B.A., M.A., Ph.D., University of Colorado; Professor of Sociology

Lundy, Jean
B.S. and M.A., Colorado State University, Ed.D., University of Northern Colorado; Assistant Professor of Speech Audiology

Marold, Kathryn
B.A., Creighton University; M.S.S., Ph.D., University of Denver; Professor of Computer Information Systems

Martinez, Michael E.
A.A., Trinidad State Junior College; B.S., Metropolitan State College of Denver; M.C.J., University of Colorado at Denver; Assistant Professor of Criminal Justice

Martinez, Lupe
B.A., M.A., San Francisco State University; Ph.D., University of Colorado; Associate Professor of Early Childhood and Elementary Education

Mascarenhas, Vijay
B.A., Harvard College; M.Phil., Ph.D., Yale University; Assistant Professor of Philosophy

Mawhinney, Charles H.
B.S., Carnegie-Mellon University; M.B.A., Ph.D., University of Pittsburgh; Professor of Computer Information Systems

Mayes, Timothy
A.A., University of Florida; B.S., Ph.D., University of Central Florida; Associate Professor of Finance

McCall, Laura
B.A., Northwestern University; M.A., Ph.D., University of Michigan; Professor of History

McInerney, Thomas
B.A., Duquesne University; M.A., Columbia University; Ph.D., University of Denver; Professor of History

McKenna, Patricia
B.A., SUNY at Potsdam; M.S., Ph.D., University of Colorado at Denver; Associate Professor of Mathematical and Computer Sciences

Meranto, Oneida
B.A., Metropolitan State College of Denver; M.A., University of Colorado at Denver; Ph.D., University of Colorado; Professor of Political Science

Miles, Ronald G. B.M., University of Denver; M.M., University of Colorado; Assistant Professor of Music

Milkman, Harvey B.
B.S., City University of New York; M.A., Ph.D., Michigan State University; Professor of Psychology

Miller, Martin C.J.
B.A., University of Illinois–Chicago; Ph.D., Loyola University of Chicago; Assistant Professor of History

Milligan, Kathleen E.
B.A., Tufts University; M.Ed. and Ph.D., University of South Carolina; Assistant Professor of Secondary Education

Mock, Robert
B.S., Illinois Institute of Technology; M.S., University of Southern California; Professor of Aviation and Aerospace Science

Moeller, Richard
B.A., Baldwin-Wallace College; M.A., George Washington University; Ph.D., University of Edinburgh; Associate Professor of Political Science

Moke, Nancy
B.A., University of Denver; M.A., University of Colorado; Assistant Professor of Human Services

Monroe, Ben, III
B.A., M.A., Ph.D., University of New Mexico; Associate Professor of Human Services

Monroe, Stuart R.
B.S., Penn State University; M.B.A., Brigham Young University; Ph.D., University of Arizona; Professor of Computer Information Systems

Morales, Nick
B.A., Trinity University, M.P.I.A., University of Pittsburgh; M.A., University of Chicago; Ph.D., University of Denver; Assistant Professor of Chicano Studies

Moreno, Abel A.
B.S., Instituto Tecnologico y de Estudios Superiores de Monterrey; M.S., Ph.D., North Dakota State University, Professor of Computer Information Systems

Morgenegg, Bruce
B.S., Colorado State University; M.S., Brigham Young University; Ed.D., Columbia University; Professor of Human Performance and Sport

Morrell, Joseph S.
B.S., University of Southwestern Louisiana; M.S., Louisiana State University; Ph.D., Florida State University; Professor of Computer Information Systems

Morris, Gerard J.
B.S., University College Galway; M.S., University of Minnesota; Ph.D., University College Galway; Professor of Computer Information Systems

Mower, Juliana
B.S.N., University of Northern Colorado; M.S.N., University of Colorado Health Sciences Center; Assistant Professor of Nursing

Murphy, Ann B.
B.S. Boston College; M.B.A., University of Nevada-Reno; Ph.D., University of Arkansas; C.M.A.; Associate Professor of Accounting

Nam, Mee Ae Cecilia
B.M., Sook-Myung, Seoul, Korea; M.M., D.M.A., University of Colorado at Boulder; Assistant Professor of Music

Nees, Hal
B.S., Northern Arizona University; B.S., Metropolitan State College of Denver; M.A., University of Northern Colorado; M.C.J., D.P.A., University of Colorado; Associate Professor of Criminal Justice

Neu, Wayne
M.B.A., University of Michigan; B.S.E., Ph.D., Arizona State University; Assistant Professor of Marketing

Nichols, Carol D.
B.S., Southeast Missouri State University; M.Ed., University of Missouri-St. Louis; Ed.D., University of Northern Colorado; Professor of Reading

Norwood, Keith R.
B.S., Massachusetts Institute of Technology; M.E. and A.B.D., University of Virginia; Assistant Professor of Mechanical Engineering Technology

O'Dell, Christine
B.S.,University of Denver; M.S., University of Colorado; Instructor of Human Performance and Sport

O'Donnell, Kathryn E.B.S., Northern Illinois University; M.S., Roosevelt University; Assistant Professor of Technical Communications

Olsen, David P.
B.S., M.S., South Dakota State University; Ph.D., University of Oklahoma; Associate Professor of Physics

O'Neill-Jones, Peggy
B.A., Loretto Heights College; M.S.S., University of Denver; Associate Professor of Technical Communications

Orlando, Vincent P.
B.S., University of Scranton; M.S., Bloomsburg State College; Ph.D., Pennsylvania State University; Professor of Reading

Packer, Lindsay
B.A., Adelaide University; M.S.c., Oxford University; M.S.c., Imperial College, London University; Ph.D., University of Texas-Austin; Associate Professor of Mathematical and Computer Sciences

Padilla, Alexandre
B.S., M.A., Ph.D., Université d'Aix-Marseille; Assistant Professor of Economics

Paskind, Rebecca
B.A., University of Mexico; M.S.W., New Mexico Highlands University; Assistant Professor of Social Work

Paul, Jody
B.S, M.S., and Ph.D., University of California, Los Angeles; Assistant Professor of Mathematical and Computer Sciences

Pence, Norman E.
B.A., M.S., Southern Illinois University; Ph.D., Colorado School of Mines; Associate Professor of Computer Information Systems

Phifer, Sandra
B.S., Old Dominion; M.A. and Ph.D., University of Nebraska–Lincoln; Assistant Professor of Early Childhood and Elementary Education

Pollman, Mary Jo
B.A., University of Southern Mississippi; M.A., University of West Florida; Ph.D., Florida State University; Associate Professor of Early Childhood and Elementary Education

Pook, Laszlo
B.S.E.E., M.S.E.E. and Ph.D., University of Colorado; Professor of Computer Information Systems

Poynter, James M.
B.A., M.A., George Washington University; Associate Professor of Travel Administration

Prevot, Kenneth
B.A., Rice University; Ph.D., Massachusetts Institute of Technology; Assistant Professor of Mathematical and Computer Sciences

Price, Jefferey
B.S., Metropolitan State College of Denver; M.A., Colorado Christian University; Assistant Professor of Aviation and Aerospace Science

Price, Roosevelt
B.S., Morehouse College; Ph.D., University of California, Davis; Assistant Professor of Chemistry

Provizer, Norman
A.B., Lafayette College; M.A., Ph.D., University of Pennsylvania; Professor of Political Science

Quatrochi, Joseph A.
B.S., Ft. Lewis College; M.S., Ph.D., University of New Mexico; Professor of Human Performance and Sport

Quizar, Stephanie Ormes
A.B., Stanford University; M.A., University of Minnesota; M.A., Ph.D., University of Colorado; Professor of English

Rabinoff, Marc A.
B.S., Southern Connecticut State College; M.S., Ed.S., University of Bridgeport; Ed.D., University of Houston; Professor of Human Performance and Sport

Randell, Chrislyn
B.A., Metropolitan State College of Denver; M.S. and Ph.D., Colorado State University; Assistant Professor of Psychology

Ransdell, Lisa
B.A., M.A. and Ph.D., Ohio State University; Associate Professor of Women's Studies

Ranwez, Alain D.
A.B., Montclair State College; Ph.D., University of Missouri; Professor of French

Rao, Anil K.
B.A., University of Colorado; M.S., Ph.D., University of Denver; Associate Professor of Biology

Reid, Melanie S.
B.S., M.S., University of Florida; Ed.D., University of Northern Colorado; Assistant Professor of Special Education

Rey-Lopez, Maria A.
Licenciada en Filologia Hispanica, Compostela; M.A. and Ph.D., University of Colorado; Assistant Professor of Spanish

Richard, Patricia
B.A., Greenville College; M.A. University of San Diego; Ph.D., Marquette University; Assistant Professor of History

Robertson, James W.
B.S., University of Colorado; M.B.A., University of Denver; Ph.D., University of Washington-Seattle; Professor of Accounting

Rockwood, Anthony A.
B.A., University of Denver; M.S., Colorado State University; Professor of Meteorology

Romagnano, Lewis S.
B.S., Polytechnic Institute of Brooklyn; M.S., Northern Arizona University; Ph.D., University of Colorado; Professor of Mathematical and Computer Sciences

Royster, Kathleen
B.F.A., M.F.A., University of Utah, Salt Lake City; Assistant Professor of Art

Ruch, David
B.S., Pomona College; M.S., Ph.D., New Mexico State University; Professor of Mathematical and Computer Sciences

Ruderman, Renee
B.A., New York University; M.A., University of Denver; M.A., University of Colorado; Associate Professor of English; Director of First Year Program

Ryu, Tae Ghil
B.B.A., Yonsei University (Seoul); M.B.A., University of Missouri; Ph.D., Rutgers University; C.P.A.; Associate Professor of Accounting

Sahami, Kamran
B.S., M.S., San Diego State Univeristy, M.S., Ph.D., University of Colorado at Boulder; Assistant Professor of Physics

Saltzman, Katherine A.
B.A., California State University-Long Beach; M.Ed., Ed.D., University of Northern Colorado; Associate Professor of Human Services

Sanders, Cheryl E.
B.A., Augustana College; M.S. and Ph.D., Iowa State University; Assistant Professor of Psychology

Sandoval, Joseph G.
B.A., Metropolitan State College of Denver; M.A., University of Colorado; J.D., University of Denver; Professor of Criminal Justice and Criminology

Saxe, Eugene W.
B.A., M.A., Indiana State University; Ph.D., University of Denver; Professor of English

Schatz, Robert T.
B.A., University of Delaware; M.A., Ph.D., University of Massachusetts–Amherst; Associate Professor of Psychology

Schmidt, John C.
B.S., St. Cloud State University; M.A., Ed.D., University of Northern Colorado; Professor of Industrial Design

Schonbeck, Niels D.
B.A., Swarthmore College; M.S., Ph.D., University of Michigan; Professor of Chemistry

Segall, Mark
B.S., Purdue University; Ph.D., Temple University; Assistant Professor of Computer Information Systems

Serrano, Felipe
B.S., Metropolitan State College of Denver; M.S., University of Wyoming; Associate Professor of Aviation and Aerospace Science

Shanks, Nancy H.
B.A. University of Colorado, Boulder; M.S., Drexel University, Philadelphia; Ph.D., University of Colorado, Denver; Associate Professor of Health Care Management

Shevalier, Rae
B.A., Metropolitan State College of Denver, M.A., Ph.D., University of Denver; Assistant Professor of Sociology

Shultz, Gerald
B.A., M.S., Ph.D., University of Colorado; Professor of Mathematical and Computer Sciences

Shwayder, Martha L.
B.A., University of Colorado; M.A., University of Northern Colorado; Ph.D., University of Colorado; Professor of Sociology

Simmons, James L.
B.A., M.A., and Ph.D., University of Colorado; J.D., University of Denver; Assistant Professor of Aviation and Aerospace Science

Skougstad, David A.
B.A., Occidental College; M.S., Colorado State University; Assistant Professor of Accounting

Snozek, Dorothy A.
B.S., California State College; M.S., Ohio University; Ed.D., West Virginia University; Professor of Reading

Socash, Richard
B.S., Case Institute of Technology, M.S., Carnegie Institute of Technology; Ph.D., Carnegie Mellon University; Assistant Professor of Computer Information Systems

Sorensen, Helle
B.A., Metropolitan State College of Denver; M.A., University of Colorado; Assistant Professor of Hospitality, Meeting and Travel Administration

Speer, Andrew
B.C.S., M.F.A., University of Kentucky; Associate Professor of Art

Steinhauser, Sheldon E.
B.S., Long Island University; Associate Professor of Sociology

Stoughton, Herbert W.
B.S.E. (C.E.), M.S.E. (G.E.), Ph.D. (C.E.), University of Michigan; Associate Professor of Surveying and Mapping

Sullivan, David
B.A., University of Chicago; M.A., University of Illinois, Chicago; Ph.D., University of Illinois, Chicago; Associate Professor of Philosophy

Sundbye, Linda
B.S., Texas A & M University; M.S., Ph.D., University of Colorado; Associate Professor of Mathematical and Computer Sciences

Susman, Ellen Pennes
B.A., University of Rochester; Ph.D., University of Michigan; Professor of Psychology

Sutton, Cynthia L.
B.S., M.S., Colorado State University; Ph.D., Arizona State University; Associate Professor of Management

Swetnam, Leslie A.
B.A., University of Northern Colorado; M.A., Michigan State University; Ph.D., Stanford University; Professor of Early Childhood and Elementary Education

Talman, Louis A.
B.A., College of Wooster; M.A., Ph.D., University of Kansas; Associate Professor of Mathematical and Computer Sciences

Tamblyn, Hal
B.M., M.M., University of Colorado; D.M.A., University of Kansas; Professor of Music; Associate Dean of the School of Letters, Arts and Sciences

Taylor, Jefferey H.
B.A. and M.A., Southern Illinois University at Edwardsville; Ph.D., Southern Illinois University at Carbondale; Associate Professor of English

Taylor, Ronald L.
B.S., University of Denver; J.D., Arizona State University; Professor of Management

Tian, Xiansheng
B.A., Henan University, Kaifeng, China; M.A., SUNY-Cortland; Ph.D., Oklahoma State University; Associate Professor of History

Tindall, Charles G.
B.A., The College of Wooster; M.S., Ph.D., Ohio State University; Professor of Chemistry; Director of Forensic Science

Todd, Stella W.
B.S., Northeastern Illinois University; M.S., University of Laramie; M.C.P., University of Rhode Island; Ph.D., Colorado State University; Assistant Professor of Geography

Torres, Luis
B.A., University of Colorado, Boulder; M.A., University of Washington, Ph.D., University of Washington; Associate Professor of Chicano Studies

Tucker, Patricia A.
B.S., Kansas State University; M.S., University of Wisconsin; Ph.D., University of Wisconsin; Professor of Mathematical and Computer Sciences

Tull, Tara
B.A., University of Colorado; M.S., Mankato State University; Assistant Dean of the School of Letters, Arts and Sciences

Uliss, Barbara
B.A., Ohio State University; M.S., Ph.D., Case Western Reserve University; C.P.A. (Ohio); Professor of Accounting

Vannucci, Cynthia L.
B.S., University of Nevada; M.B.S., Amber University; Ph.D., The Pennsylvania State University; Associate Professor of Meeting Administration

Varney, Peter J.
B.A., University of Colorado; M.S., University of Utah; Ph.D., Colorado School of Mines; Assistant Professor of Geology/ Environmental Sciences

Vigil, Jane
B.S., Brigham Young University; M.A., Brigham Young University; Ph.D., University of Nevada, Reno; Associate Professor of English

Visona, Monica B.
A.B., Stanford University; M.A., Ph.D., University of California at Santa Barbara; Associate Professor of Art

Wade, Roger C.
B.A., State University of New York at Geneseo; Ph.D., University of Colorado; Professor of Sociology

Wagner, Richard
B.A., Carleton College; M.A.T., Washington University; M.S., University of Wisconsin-Milwaukee; Ph.D., University of Wisconsin-Madison; Associate Professor of Meteorology

Walker, Rosemarie E.
B.S., Arizona State University; Ph.D., University of Utah; Assistant Professor of Chemistry

Watson, Mary Ann
B.A., Grove City College; Ph.D., University of Pittsburgh; Professor of Psychology

Watts, Greg
B.A., Kingston University (England); M.F.A., University of Florida; Professor of Art

Weddig, Jennifer
B.S., Arizona State University; M.S., Illinois State University; Assistant Professor of Nutrition

Weiser, Brian S.
B.A., Columbia College; M.A., Columbia University; M.A., Ph.D., Washington University; Assistant Professor of History

Wetzel, Jodi
B.A., M.A., University of Utah; Ph.D., University of Minnesota; Professor of History and Women's Studies; Director of the Institute for Women's Studies and Services

Wieder, Milton J.
B.S., M.A., Ph.D., City University of New York; Professor of Chemistry

Williams-Gascon, Ann
B.A., Adams State College; M.A., University of Cincinnati; Ph.D., Northwestern University; Professor of French

Worosz, Theophil J.
B.A., M.A., State University of New York at Buffalo; Ph.D., University of Illinois; Associate Professor of Mathematical and Computer Sciences

Worster, Lawrence
B.S., St. Lawrence University; B.A., University of Colorado, Boulder; M.Mus., University of Colorado, Boulder; Ph.D., University of Colorado, Boulder; Professor of Music

Worthy, Shawn C.
B.A., University of Illinois; M.S., Ph.D., Northern Illinois University; Associate Professor of Human Services

Wray, Michael
A.S., Valley Forge Military College; B.S., Virginia Polytechnic Institute and State University; M.B.A. Salisbury State University; Associate Professor of Hospitality, Meeting and Travel Administration

Wynot, Jennifer J.
B.A., Florida State University; M.A. and Ph.D., Emory University; Assistant Professor of History

Yagisawa, Yuko
B.F.A., Edinboro University of Pennsylvania; M.F.A., San Diego State University; Assistant Professor of Art

Yarar, Ruth Goldberg
B.S., M.S., Hebrew University; M.Ph., University of London; Assistant Professor of Mathematical and Computer Sciences

EMERITUS FACULTY

Vance Aandahl, M.A., Associate Professor Emeritus–English

Dan Alfaro, Ph.D., Professor Emeritus–Student Teaching

Donald Alford, Ph.D., Professor Emeritus–Biology

Charles Allbee, D.A., Professor Emeritus–English

Dorothy Babcock, R.N.M.S.C., Professor Emeritus–Health Professions

Richard Balay, D.A., Professor Emeritus–Mathematical Sciences

Margie Ball-Cook, Ph.D., Professor Emeritus–Nursing

George Becker, Ph.D., Professor Emeritus–Biology

Donald Bennett, Ed.D., Professor Emeritus–Elementary and Early Childhood Education

Stephen Benson, Ph.D., Professor Emeritus–Philosophy

Eugenia H. Berger, Ph.D., Professor Emeritus–Education

Janis Bohan, Ph.D., Professor Emeritus–Psychology

Jan Buswell, PhD., Professor- Emeritus Teacher Education

Susan Cable, D.A., Professor Emeritus–Music

Melvin Capehart, M.S.E.E., Professor Emeritus–Electrical Engineering Technology

Douglas Cawley, Ph.D., Professor Emeritus–Teacher Education

Alfonso Cervantes, Ph.D., Associate Professor Emeritus–Spanish

Ernest Jose Cisneros, D.A., Associate Professor Emeritus–Mathematical Sciences

Robert Cohen, Ph.D., Professor Emeritus–Biology

Jett Conner, Ph.D., AssociateVice President Emeritus, Professor–Political Science

Thomas Cook, M.A., Professor Emeritus–Communications Arts and Sciences (Posthumous)

Waldo H. Copley, Ph.D., Professor Emeritus-Criminal Justice and Criminology

Doris Cost, Ed.D., Associate Professor Emeritus–Marketing

James R. Craig, Ph.D., Professor Emeritus–Speech Communication

Richard Daetwiler, Ph.D., Professor Emeritus–Drug/Alcohol

Alan M. Dahms, Professor Emeritus–Psychology

Edward Davies, Ph.D., Professor Emeritus–Physics

Jan Delasara, Ph.D., Professor Emeritus–English

Lynn Denzin, M.Ed., Executive Director Emeritus–Application Services

Fred Dewey, Ph.D., Professor Emeritus–Chemistry

James Downs, Ph.D., Professor Emeritus–Marketing

Felix DyReyes, Ph.D., Professor Emeritus–Finance

Lois Dilatush, Ph.D., Professor Emeritus–Sociology

Doyle Ellerbruch, M.S.E.E., P.E., Associate Professor Emeritus–Electrical Engineering Technology

Yolanda Erickson, Emeritus–Vice President for Student Services

Antonio Esquibel, Ph.D., Professor Emeritus–Spanish

Juan Esteve, Ph.D., Professor Emeritus–Spanish

Paul Freeburn, Ed.D., Professor Emeritus–Teacher Education

Shirley Fredricks, Ph.D., Professor Emeritus -History

Gail Gliner, Ph.D., Professor Emeritus–Mathematical and Computer Science

Frieda K.Holley, PhD., Administrator Emeritus–Academic Affairs; Professor Emeritus–Mathematical and Computer Sciences

Oliva Lopez Hartenstein, M.A., Associate Professor Emeritus–Spanish

Mark Harvey, Ed.D., Professor Professor Emeritus–Human Performance, Sport and Leisure

Susan Helms, Ph.D., Professor Emeritus–Computer Information Systems

Gary H. Holbrook, M.S., Professor Emeritus–Speech Communication

Robert Hollenbeck, Ph.D., Professor Emeritus–Biology

Charles Howerton, Ph.D., Professor Emeritus–Computer Science

Kenneth Huggins, Ph.D., Professor Emeritus–Finance

Jeffrey Hurlbut, Ph.D., Professor Emeritus–Chemistry

Carolyn Jass, Ph.D., Professor Emeritus–Nursing

Pat R. Johnson, M.S., Assistant Professor Emeritus–Human Performance and Sport

Sandra Jones–Director Emeritus–Personnel/Payroll Services

Susan Josepher, Ph.D., Professor Emeritus–Art

Edward W. Karnes, Ph.D., Professor Emeritus–Psychology

Paul Katsampes, Ph.D., Professor Emeritus –Criminal Justice and Criminology

Larry Keating, M.S., Professor Emeritus–Electrical Engineering Technology (Deceased)

John Kilcoyne, Ph.D. Professor Emeritus –Earth and Atmospheric Sciences

Jane Kober, Professor Emeritus–Human Performance, Sport and Leisure.

Rodger Lang, M.F.A., Professor Emeritus–Art (Posthumous)

Mabel Leathers, Ph.D., Professor Emeritus–Sociology

Robert E. Leitz, M.S.; Assistant Professor Emeritus –Geology

Gerhard Lind, Ph.D., Professor Emeritus–Chemistry

J. Thomas Logan, M.F.A., Professor Emeritus–Art

Robert Mangold, M.F.A., Professor Emeritus–Art

Megan McClard, Ph.D., Professor Emeritus–English

Jerrald M. McCollum, Ph.D., Professor Emeritus–Music

Annette McElhiney, Ph.D., Professor Emeritus–English and Women's Studies

Kathleen McGuire-Mahoney, Ph.D., Professor Emeritus–Nursing

Joe D. Megeath, Ph.D., Professor Emeritus–Computer Information Systems

Charles Mena, Ph.D., Professor Emeritus–Teacher Education

Celestino Mendez, Ph.D., Professor Emeritus–Mathematics and Computer Science

Mary Miller, Ph.D., Professor Emeritus–Health Professions

Richard C. Misare, M.S., Assistant Professor Emeritus–Mathematical Sciences (Posthumous)

Ben Monroe, Ph.D., Professor Emeritus -Human Services

Vernon Moody, M.M.E., Associate Professor Emeritus–Music

William H. Morse, D.M.A., Associate Professor Emeritus–Music

Charlotte W. Murphy, Ph.D., Professor Emeritus –Mathematical and Computer Sciences

Frank Nation, M.A., Associate Professor Emeritus–History

Richard Netzel, Ph.D., Professor Emeritus–Physics

Arthur Odden, J.D., Professor Emeritus–Management

Conway Olmsted, Ph.D., Associate Professor Emeritus–Spanish

Olsen, David P. Ph.D., Associate Professor Emeritus –Physics

Gerald Palmer, Ph.D., Professor Emeritus–Computer Information Systems & Management Science

David W. Parker, Ed.D., Professor Emeritus–Industrial Technology

Virginia Parker, Ph.D., Professor Emeritus –Accounting

Ferdinand Patrone, Ph.D., Professor Emeritus–Management

Jon Plachy, Ed.D., Professor Emeritus–Mathematical and Computer Science

Frank Powell–Professor Emeritus–Human Performance, Sport and Leisure

Charles A. Prins, Ph.D., Professor Emeritus–Computer Information Systems

Robert J. Pugel, Ph.D., Associate Professor Emeritus–English

Joseph A. Raab, Ph.D., Professor Emeritus–Mathematical Sciences

Kenneth A. Rager, Ph.D., Professor Emeritus–Mathematical and Computer Science

Carleton H. Reed, L.L.D., Professor Emeritus–Criminal Justice and Criminology

John T. Reed, Ph.D., Director Emeritus–Academic Computing and User Services

Jeremiah Ring, Ph.D., Professor Emeritus–History

E. Jean Schiff, M.F.A., Professor Emeritus–Art

Robert Schneider, Ph.D., Professor Emeritus–Psychology (Deceased)

Judith D. Scott, Ph.D., Professor Emeritus–Marketing

Richard C. Scott, D.B.A., Professor Emeritus–Management

Kenneth Shaw, Ph.D., Professor Emeritus-Computer Information Systems

Roberta Smilnak, Ph.D., Professor Emeritus-Earth and Atmospheric Sciences (Deceased)

Carol Steele, M.S., Assistant Professor Emeritus–Biology

Joyce Stephen Sutterfield, Ph.D., Professor Emeritus–- Criminal Justice and Criminology

Jackie Swensson, Ph.D., Professor Emeritus–English

Cedric Tarr, Ph.D., Professor Emeritus–Political Science

Akbarali Thobhani, Ph.D., Professor Emeritus–African American Studies

Gwendolyn A. Thomas Ph.D., Professor Emeritus–English

Nancy Thompson, Ph.D., Associate Professor Emeritus–Mathematical Science

Brooks Van Everen, Ph.D., Professor Emeritus–History

Charles R. Vitaska, Ph.D., Professor Emeritus–Marketing

David Voth, Ph.D., Professor Emeritus–Biology

Donald Wall, Ph.D., Professor Emeritus–History

Cottee J. White, Ph.D., Professor Emeritus–African American Studies

Ronald Whittekin, D.A., Professor Emeritus–Mathematical Sciences

Lyn W. Wickelgren, Ph.D. Professor Emeritus Psychology

Jackie Lynn Wilson, D.P.A., Professor Emeritus–Criminal Justice and Criminology

Jerry H. Wilson, Ph.D., Professor Emeritus–Physics

Robert Wright, Ph.D., Professor Emeritus–Urban Studies

Elyse Yamauchi, M.A., Emeritus–Student Judicial Officer

J. O. Yunker, M.S., Professor Emeritus–Technical Communications

A

Academic
- Advising, 32
- Calendar, 7
- Dishonesty, 82
- Good Standing, 77
- Honesty, 79
- Misconduct, 81
- Policies and Procedures, 71
- Probation, 78
- Rights, 80
- Responsibilities, 81
- Suspension, 78
- Warning, 77

Access Center, 35
Accounting Department, 90
- Course Descriptions, 312
- Major, 90
- Minor, 108

Accreditations/Approvals, 10
Adaptive Self-Paced Learning, 307
Addiction Studies, Center for, 259
Administration, 527
- Trustees, 527

Admissions, 17
- Admission Notification, 20
- Admission of International Students, 21
- Admission of Nondegree Students, 19
- Admission of Previously Enrolled Students, 19
- Admission Requirements, 17
- Applicants 20 Years of Age or Older, 18
  - Freshmen, 18
  - College Transfers, 18
- Applicants 19 Years Old or Younger, 17
  - Freshmen, 17
  - College Transfers, 17
- Application Deadlines, 17
- Application Instructions, 19
- College Transfer, 17, 18, 22
- Freshman Admission Eligibility Index, 23
- High School Concurrent Enrollment Program, 20
- Meritus at MSCD (Senior Program), 21
- Post-Secondary Enrollment Options, 20
- Summer Semester Only, 20
- Transfer Credit Evaluation, 21

Advanced Placement Examinations, 43
Advising (*See* Academic Advising)
African American Studies Department, 114
- Course Descriptions, 310
- Major, 114
- Minor, 115

Air Force ROTC Program, 228
- Course Descriptions, 321

Alternative Credit Options, 43
Alumni Relations, 32
Americans with Disabilities Act, 83
Amorous Relationships, 83
Anthropology, 116
- Course Descriptions, 322
- Major, 116
- Minor, 116

Application Instructions, 19
Army ROTC Program, 229
- Course Descriptions (Military Science), 452

Art Department, 116
- Course Descriptions, 324
- Bachelor of Fine Arts Major, 117
- Bachelor of Arts Major, 124
- K-12 Art Licensure, 123
- Minors, 125

Assessment Requirements, 68
Astronomy
- Course Descriptions, 335

Athletics
- Course Descriptions, 336
- Intercollegiate, 42

Athletic Training Education (ATEP), 251
Attainment Examinations, 49
Attendance, 83
Auditing Classes, 25
Auraria Higher Education Center
- Campus Police and Security, 32
- Early Learning Center, 33
- Parking and Transportation Services, 33

Aviation & Aerospace Science Department, 221
- Course Descriptions, 314
- Majors, 224, 225
- Minors, 227

Aviation Management, 221, 224
Aviation Technology, 221, 225
Awards (*See* Honors and Awards)

B

Bachelor Degree Requirements, 12
B.A.S.E. (Board of Academic Standards Exceptions), 79
Basic Degree Requirements, 12
Behavioral Science, 126
- Major, 126

Bilingual Education
- Minor, 295

Biology Department, 126
- Course Descriptions, 336
- Major, 127
- Minor, 130

Board of Trustees, 527
Broadcasting (*See* Speech Communication)
Business, School of, 87
- Bachelor of Arts Degree Programs, 88
- Bachelor of Science Degree Programs, 88
- Bachelor of Science Degree Requirements, 89
- Minors, 108

C

Calendar, Academic, 7
Campuses, The, 6
- Map, Back and Front Covers
- Parking and Transportation Services (Auraria), 33
- Campus Police and Security, 32
- Recreation, 41
- Metro North, Metro South, 37

Campus Crime Information, 86
Campus Police and Security, Auraria, 32
CAPP (Curriculum, Advising & Program Planning), 71
Career and Personal Development
- Course Descriptions, 340

Career Services, 33
Catalog Selection for Requirements, 71
Center for Individualized Learning, 54
Center for the Visual Arts, 34
Centers
  Addiction Studies, 259
  Auraria Early Learning, 33
  High Risk Youth Studies, 261
  Individualized Learning, 54
  Nonprofit Organization Administration, 262
  Spring International Learning , 38
  Visual Arts, 34
Certificates of Completion, 11
Changing a major, 71
Chemistry, 130
  Course Descriptions, 344
  Major, 131, 133
  Minors, 133
Chicana and Chicano Studies Department, 134
  Course Descriptions, 347
  Major, 134
  Minor, 135
Child Care Center, Auraria, (*See* Auraria Early Learning Center)
Child Development Center, (*See* Children's College)
Children's College, 34
Civil Engineering Technology, 230
  Course Descriptions, 341
  Major, 231
Class Attendance, 83
CLEP (College-Level Examination Program), 46
COF (College Opportunity Fund, 27
College Opportunity Fund (COF), 27
College, The, 5
College-Level Examination Program (CLEP), 46
Combined Computer Access Center (*See* Access Center)
Communication Arts and Sciences, 160, 208, 213
Communication Theory (*See* Speech Communication Department)
Computer Information Systems Department, 93
  Course Descriptions, 351
  Major, 93
  Minor, 109
  Certificate Programs, 95
Computer Science, 135
  Certificate of Completion, 137
  Course Descriptions, 354
  Major, 136
  Minor, 137
Computer Science Studies
  Course Descriptions, 363
Concurrent Enrollment, 24
Conduct, 79
Cooperative Education, 51, 309
Correspondence Courses, Credit Limitations, 13
Costs, 29
Counseling Center, 34
Course Audit Policy, 25
Course Descriptions, 307
Course Load, 71
Credit by Examination, 50
Credit for Military Training, 51
Credit for Prior Learning, 43
  Advanced Placement Examinations, 44
  CLEP (College-Level Examination Program), 46
  Credit by Examination, 50
  Credit for Military Training, 51
  International Baccalaureate, 45
  Portfolio Assessment, 50
Credit Limitations, 13
Credit Requirements, 16, 56
Crime Information, 86
Criminal Justice and Crininology Department, 232
  Course Descriptions, 350
  Major, 232
  Minor, 233
Criminalistics (*See* Chemistry Department)
Curriculum, Advising, and Program Planning (CAPP), 71

D

Declaring a Major, 71
Degree Requirements
  For all Bachelor's Degrees, 12
  For a Second Degree, 13
Degrees and Programs Available, 8
Dental Insurance, 29
Department Credit by Examination, 50
Digital Media Minor, 137, 234
Diplomas and Commencement, 72
Directory Information, 85
Disability and Adaptive Technology Services, (*See* Access Center)
Distance Education, 6

E

Early Childhood, Elementary and Special Education (*See* Teacher Education)
Early Childhood Licensure Programs (*See* Teacher Education)
Earth and Atmospheric Sciences Department, 139
Economics Department, 107
  Course Descriptions, 366
  Major, 108
  Minor, 108
Education, Licensure (*See* Teacher Education)
Education, Minors (*See* Teacher Education)
Education, Teacher Program (*See* Teacher Education)
Electrical Engineering Technology, 235
  Department Index, 239
  Course Descriptions, 374
  Major, 235
  Minors, 238
  Certificate of Completion, 238
Elementary Education Licensure Program (*See* Teacher Education)
English Department, 140
  Course Descriptions, 378
  Major, 141
  Minors, 143
Enrollment, 24
  Academic Advising, 24
  Concurrent, 24
  New Student Orientation, 24
  Placement Examinations, 24
  Transfer Credit Evaluation, 21
  Transfer Services, 22
Environmental Science, 146
  Course Descriptions, 384
  Major, 146
Environmental Studies Minor, 151
Equal Opportunity & Americans with Disabilities Act, 83
Extended Campus Program, 35
  Map, Back Cover

F

Faculty, 533
    Emeritus, 542
Family Educational Rights and Privacy Act, 84
Fees, 27
Field Experience Courses, 308
Final Examinations, 83
Finance Department, 97
    Course Descriptions, 386
    Major, 98
    Minors, 109
    Certificates of Completion, 100
Financial Aid, 29
    Application Procedures, 29
    As a Form of Payment, 32
    Award Notification, 31
    Eligibility and Need, 29
    Estimated Expenses, 29
    Grants, 30
    Loans, 30
    Package, 31
    Programs, 29
    Repayment Policy, 32
    Scholarships, 30
    Work-Study, 31
Financial Services Minor, 109
First-Year Program, 52
First-Year Seminar
    Course Description, 388
Forensic Science (*See* Chemistry/Criminalistics)
French
    Course Descriptions, 388
    Minor, 180
Freshman Admission Eligibility Index, 23

G

Gay, Lesbian, and Bisexual Student Services, 35
General Business Minor, 110
General Finance Minor, 109
General Information, 5
    Campuses, 6
    Faculty, 6
    Students, 5
General Studies, 15, 55
    Arts and Letters, 61
    Composition Requirement, 57
    Communications Requirement, 58
    Distribution and Credit Requirements, 16, 56
    Historical, 60
    Mathematics Requirement, 57
    Natural Sciences, 64
    Placement Exams, 58
    Social Science, 62
    State Guaranteed, 15, 55
Geographic Information Systems, 168
    Course Descriptions, 400
Geography, 167
    Course Descriptions, 390
    Minor, 167
    Geographic Information Systems Certificate, 168
    Geotechnology Systems Certificate, 169
Geology, 168
    Course Descriptions, 393
    Minor, 168
German
    Course Descriptions, 397
    Minor, 180
Gerontology Program, 152, 239
    Minor, 152, 239
    Certificate of Completion, 240, 241
Good Standing, Academic, 77
Grade Appeal, 77
Grade Point Average, 73
Grades and Notations, 76
    Pass-Fail Option, 76
    Quality Points, 76
    Repeated Courses, 76
Graduation, 72
Graduation Rates, 85
Graduation Requirements
    For All Bachelor's Degrees, 12
    For a Second Degree, 13
    Checklist, 14
Grants (*See* Financial Aid)
Guaranteed Transfer, 55

H

Health Care Management, 242
    Course Descriptions, 401
    Major, 242
    Minor, 243
Health Center at Auraria, 36
Health Education Services, 243
    Course Descriptions, 402
Health Insurance (*See* Student Health Insurance)
Health Professions Department, 241
    Department Index, 241
High Risk Youth Studies, Center for, 261
High School Upward Bound, 36
History Department, 153
    Course Descriptions, 405
    Major, 153
    Minor, 154
Holistic Health and Wellness Education
    Multi-Minor, 156, 244
Honors and Awards, 73
Honors Program, 52
    Course Descriptions, 418
Hospitality, Meeting and Travel Administration
    Department, 244
    Course Descriptions, 413
    Major, 246
    Minors, 248
Human Development, 156
    Major, 157
Human Performance, Sport and Leisure Studies
    Department, 248
    Course Descriptions, 420, 422, 428
Human Performance and Sport, 249
    Majors, 250
    Minors, 255
    Certificates of Completion, 257
Human Services Department, 257
    Course Descriptions, 430
    Major, 257
    Minor, 263
    Certificate of Completion, 261, 262

I

Immigrant Services, 36
Individualized Degree Program, 12, 53, 54
Individualized Studies, 10, 12, 53, 54
Industrial and Technical Studies
    Course Descriptions, 439
Industrial Design, 263
    Major, 264
    Course Descriptions, 436
Information Systems (*See* Computer Information Systems)
Informational Technology, 36
Insurance (*See* Student Health Insurance)
Integrated Arts and Sciences, 12
Intercollegiate Athletics, 42
Intercultural Studies
    Course Descriptions, 435
Interdisciplinary Legal Studies Minor, 155
Interinstitutional Registration, 25
International Baccalaureate, 45
International Business
    Concentration, 106
    Minor, 110
International Education
    Admission of International Students, 21
    International Baccalaureate Degree, 45
    Language and Culture Institute, 55
    Study-Abroad Programs, 54
International Student Services, 37, 54
International Studies, 12, 37
Internship Courses, 308
Italian
    Course Descriptions, 439

J

Japanese
    Course Descriptions, 439
Journalism Program, 160
    Course Descriptions, 440
    Major, 160
    Minor, 162
Judicial Affairs, 40
Judicial Process, 82

L

Land Use, 163
    Certificates of Completion, 168
    Major, 163
Language and Linguistics Minor, 145
Language and Culture Institute, 55
Last Grade Stands Policy, 76
Last 12 Hours, 13
Law (*See* Legal Studies Minor)
Legal Studies Minor, 155
Leisure Studies, 265
    Course Descriptions, 443
    Major, 265
Leisure Services Minor, 266
Letters, Arts and Sciences
    Course Descriptions, 442
Letters, Arts and Sciences, School of, 113
Library, 6
Loans (*See* Financial Aid)

M

Major
    Declaring/Changing, 71
Management Department, 101
    Course Descriptions, 449
    Major, 101
    Minor, 111
Map, Back and Front Covers
Marketing Department, 104
    Course Descriptions, 453
    Major, 104
    Minor, 111
Mathematical and Computer Sciences Department, 170
    Course Descriptions, 455
    Major, 170
    Minor, 174
Mechanical Engineering Technology Program, 267
    Course Descriptions, 446
    Major, 267
    Minor, 269
Meteorology Program, 174
    Course Descriptions, 460
    Major, 174
    Minor, 175
Metro Bridge Program, 37
Metro Meritus (Senior Program), 21
Metro North, Metro South, 35, 37
Military Science (Army ROTC)
    Course Descriptions, 452
Modern Languages Department, 176
    Course Descriptions, 445
    Major, 176
    Minors, 180
    Spanish
      Minor, 180
    Teacher Licensure, 178
      French, 180
      German, 180
      Spanish, 180
    Certificates of Completion, 181
Multicultural Course Requirement, 65
Music Department, 182
    Course Descriptions, 463
    Music Education Major, 182
    Music Performance Major, 184
    Bachelor of Arts in Music, 184
    Minor, 188

N

Native American Studies, 188
    Course Descriptions, 471
    Minor, 188
New Student Orientation, 24
Nondisclosure and Exceptions, 85
Nonprofit Organization Administration, Center for, 262
Nursing Department, 269
    Accelerated Nursing Program, 270
    Course Descriptions, 471
    Major, 274
Nutrition Minor, 275
    Course Descriptions, 473

O

Officers of Administration, 527
Omnibus Courses, 307
    Credit Limitations, 13
Organizational Communication (*See* Speech Communication)
Orientation, 24
Overload, 71

P

Parent Education, 189, 275
    Course Descriptions, 475
    Minor, 189, 275
Parking and Transportation Services, Auraria, 33
Pass-Fail Option, 76
Philosophy Department, 190
    Course Descriptions, 475
    Major, 190
    Minor, 191
Physics Department, 191
    Course Descriptions, 478
    Major, 191
    Minors, 192
Placement Examinations, 24, 43
Police (*See* Campus Police)
Policies and Procedures
    Academic, 71
    Equal Opportunity and ADA Statement, 83
    Family Educational Rights and Privacy Act, 84
    Pooled Registration, 25
    Probation Policy, 77
    Student Right-to-Know & Campus Security Act, 85
    Student Rights and Responsibilities, 79
Political Science Department, 192
    Course Descriptions, 482
    Major, 193
    Minors, 193
    Prelaw, 193
    Public Administration, 194
    Certificate of Completion, 195
Portfolio Assessment, 50
Post-Secondary Enrollment Options, 20
Practicum, 308
Preparatory Course Credit Policy, 22
Prior Learning, 43
Professional Studies, School of, 219
Psychology Department, 195
    Course Descriptions, 486
    Major, 195
    Minor, 197
Public Address and Rhetoric (*See* Speech Communication)
Publications, Student, 41
Public Relations Minor (*See* Journalism)

Q

Quality Points, 76

R

Reading, 276
    Course Descriptions, 491
    Minors, 277
    Certificate of Completion, 277
Recreation, 41
Registration, 24
    Changes, 26
    Concurrent Enrollment, 24
    Course Audit Policy, 25
    Interinstitutional, 25
    Pooled, 25
    Status, 26
Repeated Courses, 76
Requirements
    Assessment, 68
    Catalog, 71
    for All Bachelor's Degrees, 12
    for a Second Degree, 13
Residency Requirements, 13
Rights and Responsibilities (*See* Student Rights and Responsibilities)
ROTC (*See* Air Force ROTC or Army ROTC)

S

Scholarships (*See* Financial Aid)
Schools
    Business, 87
    Letters, Arts and Sciences, 113
    Professional Studies, 219
Science
    Course Descriptions, 493
Second Degree Requirements, 13
Secondary Education (*See* Teacher Education)
Security, (*See* Campus Police)
Self-Paced Credit, 307
Semester Hours, 71
Senior Experience Requirement, 69
Senior Program (Meritus at MSCD), 21
Service-Learning Program, 51
Services and Programs for Students, 32
Sexual Harassment Policy, 82
Short Term Emergency Loan Program, 37
Social Work Department, 197
    Course Descriptions, 515
    Major, 198
    Minor and Certificate in Family Support, 202
Sociology, 205
    Course Descriptions, 495
    Major, 205
    Minor, 207
Spanish (*See* Modern Languages)
    Course Descriptions, 500
    Minor, 180
Special Academic Programs, 52
    First Year, 52
    Honors, 52
    Individualized Degree Programs, 53
Special Education, 278
    Course Descriptions, 494
    Major, 278
    Minor, 281
Speech Communication, 208
    Course Descriptions, 504
    Major, 208
    Minors, 212
Speech, Language, Hearing Sciences (*See* Speech Communication)
Spring International Language Center at Auraria, The, 38
State Guaranteed General Education Courses, 15, 55
Student Activities, 40

Student Bill of Rights, 13
Student Classification, 71
Student Conduct Code, 79
Student Finance Resource Center (See Short Term Emergency Loan Program)
Student Government Assembly, 40
Student Health Insurance, 28
  Dental Insurance, 29
  Waiver Policy/Deadline, 29
Student Intervention Services, 38
Student Life, 40
  Campus Recreation, 41
  Intercollegiate Athletics, 42
  Judicial Affairs, 40
  Student Activities, 40
  Student Affairs Board (SAB), 40
  Student Government Assembly, 40
  Student Problem Action Network (SPAN), 40
  Student Publications, 41
Student Publications, 41
Student-Right-to-Know, 85
Student Rights and Responsibilities, 80, 81
Student Success, 38
Student Support Services, 38
Student Teaching (*See* Teacher Education)
Student Travel Program, 38
Student Union, Tivoli, 38
Study Abroad Courses, 54
Surveying and Mapping, 281
  Course Descriptions, 510
  Major, 282
  Minor, 283
Suspension Policy, 78

T

Table of Contents, 3
Teacher Education Department, 283
  Admission, 285
  Approved majors or subject area endorsements, 284
  Licensure
    Professional Early Childhood Education, 288
    Professional Elementary Education, 289
    Professional Secondary and K-12 Education, 291
  Licensure Only, 286
  Minors
    Bilingual/Bicultural, 295
    Early Childhood, 296
    Elementary, 297
    Reading, 276
    Secondary, 297
    Special Education, 281
  Student Teaching, 287
  Teacher Application Center, 285
Technical Communications, 299
  Course Descriptions, 357
  Major, 299
  Minor, 300
  Certificate of Completion, 300
Theatre, 213
  Major, 213, 215
  Minor, 215, 216
  Course Descriptions, 518
Tivoli Student Union, 38
Transcripts of Records, 72
  Falsified Transcripts & Diplomas, 72
Transfer Credit Evaluation, 21
Transfer Services, 22
Trustees of Metropolitan State College of Denver, 527
Tuition and Fees, 26
  Tuition Classification, 26
  Tuition and College Service Fees, 27
  College Opportunity Fund, (COF), 27
Tutoring Program, 39

U

Urban Studies
  Course Descriptions, 522

V

Veterans Services, 39
Veterans Upward Bound, 39
Voluntary Insurance (*See* Student Health Insurance)

W

Warning/Probation/Suspension Policy, 77
Western Undergraduate Exchange, 21
Withdrawal
  Emergency, 78
  No Credit (N/C), 75
Women's Services, 39
Women's Studies and Services, Institute for, 216
  Course Descriptions, 522
  Individualized Degree Program, 217
  Minor, 217
  Certificate of Completion, 218
Work-Study, 31
Writing Center, 40