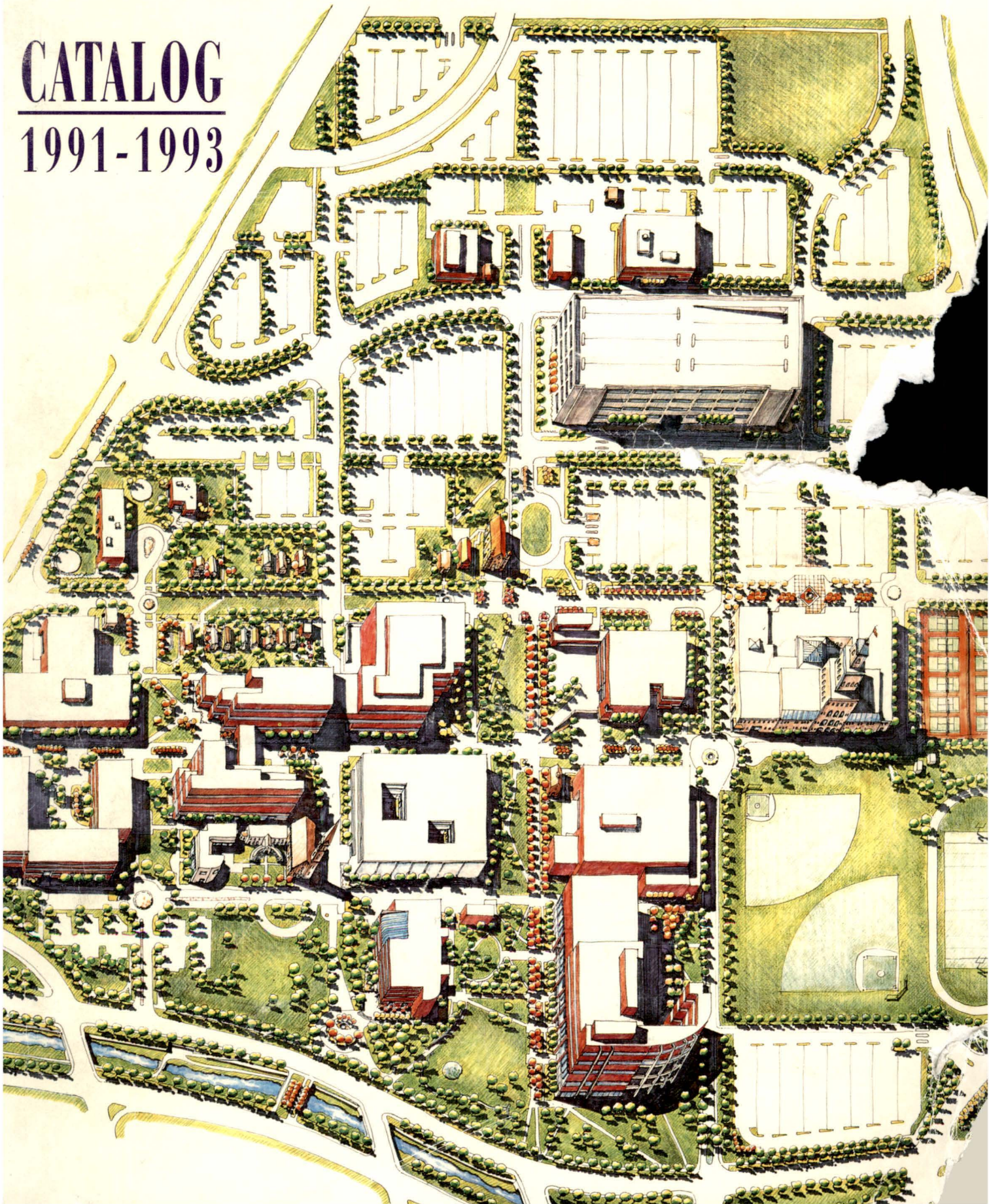


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Metropolitan State College of Denver

CATALOG
1991-1993



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Metropolitan  State College of Denver

CATALOG
1991-1993

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Metropolitan State College of Denver does not discriminate on the basis of race, color, religion, national or ethnic origin, age, handicaps, or sex. Inquiries concerning the college grievance procedures may be directed to the designated MSCD officials.

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, or handicap in admissions or access to, or treatment or employment in, its educational programs or activities. Inquiries concerning Title VI and Title IX may be referred to Dr. Percy Morehouse, Jr., Director of Equal Opportunity/Assistant to the President, P.O. Box 173362, Campus Box 63, Denver, CO 80217-3362, (303) 556-2999. Inquiries concerning Section 504 may be referred to AHEC, P.O. Box 4615-P, Denver, CO 80204, (303) 556-8387. Or, inquiries may be referred to the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, CO 80294.

The programs, policies, statements, and procedures contained in this catalog are subject to change by the college without prior notice. Metropolitan State College of Denver reserves the right to withdraw courses at anytime, rules, calendar, curriculum, graduation procedures, and any other requirements affecting students. Changes will become effective whenever the proper authorities so determine and will apply to prospective students.

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	Date of First Appointment	Present Term Expires
Vickie L. Ford, Center, Vice Chair	1985	1991
Gary M. Reiff, Denver	1989	1993
David M. Herrera, Fort Collins, Chair	1985	1991
Aims C. McGuinness, Jr., Denver	1989	1993
James E. Miller, Colorado Springs	1989	1993
Anne Steinbeck, Gunnison	1987	1991
Thomas Thornberry, Craig	1987	1991
Ted Violet, Faculty, Western State College	1989	1990
Chris Terranova, Student, Western State College	1990	1991
Glenn Burnham, Ph.D., President of the State Colleges in Colorado	1990	

METROPOLITAN STATE COLLEGE OF DENVER OFFICERS OF ADMINISTRATION

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Assistant to the President	Charles M. Dobbs, Ph.D.
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Director of Sports Information and Promotions and Assistant Director of Intercollegiate Athletics	Gregory C. Smith, B.A.
Director of Planning	Carol Werner Futhy, Ph.D.
Director of Institutional Research	Paul H. Wilken, Ph.D.
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Assistant Director	Patty McConnell, M.S.
Coordinator of Outdoor Adventure	Timothy A. Jorgensen, B.A.
Coordinator for Intramural/Club Sports/Fitness Center	Scott Reetz, M.A.

Administration

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Director of Counseling Center	Barbara Vollmer, Ph.D.
Staff Psychologist	Don Sugar, Psy.D.
Staff Psychologist	Jose Rodriguez, Psy.D.
Sr. Counselor	Barbara McIntire, M.S.W.
Career Counselor	Donna Merrifield, M.S.
Counselor	Jose Rodriguez, M.A.

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Financial Aid Counselor	Bennett Buenconsejo
Financial Aid Counselor	Juree Jacques, B.A.
Financial Aid Counselor	Donelyn James, B.S.
Financial Aid Counselor	Dawn McCrocklin, B.S.
Financial Aid Counselor	Brenda Sebastian, B.A.
Financial Aid Counselor	Cindy Hejl, B.S.
Financial Aid Counselor	Douglas Futch, B.S.

Student Activities

Director of Student Activities	To be appointed
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Student Health Clinic

Director of the Student Health Clinic	Steve Monaco, M.A.
---------------------------------------	--------------------

Student Legal Services

Director of Student Legal Services	Spike Adams, J.D.
------------------------------------	-------------------

Student Publications

The Metropolitan, Metrosphere

Director of Student Publications	Kate B. Lutrey, B.A.
----------------------------------	----------------------

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Associate Vice President for Business Services	Robert F. Rizzuto, M.B.A.
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Executive Director of the Foundation	Len Meyer, M.A.
Director of Support Services	Bradley Snyder, Ph.D.

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School of Business

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Associate Dean	R. Michael Brown, Ph.D.
Department Chairs	
Accounting	Patricia D. Duckworth, Ph.D.
Computer Information Systems and Management Science	Gwynne E. Larsen, Ph.D.
Economics	John P. Cochran, Ph.D.
Finance	Jerry D. Boswell, D.B.A.
Management	Robert Lucas, D.B.A.
Marketing	Donald Glover, Ph.D.
Director of the Institute for Entrepreneurship & Creativity	Courtney Price, D.P.A.
Director of the African American Leadership Institute	Ronald M. Knights, Ph.D.

School of Letters, Arts and Sciences

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Associate Dean	Joan M. Foster, Ph.D.
Assistant to the Dean	Tony Montoya, M.A.
Assistant to the Dean	Joseph W. Threadgill, M.A.
Department Chairs	
Art	Susan Josepher, Ph.D.
Biology	George C. Becker, Ph.D.
Chemistry	Jack D. Cummins, Ph.D.
Earth and Atmospheric Sciences	Roberta A. Smilnak, Ph.D.
English	Elsie G. Haley, Ph.D.
History	Stephen J. Leonard, Ph.D.
Journalism	Barbara H. Ryan, M.S.
Mathematical Sciences	George S. Donovan, Ph.D.
Modern Languages	David Conde, Ph.D.
Music	Hal Tamblyn, D.M.A.
Philosophy	Stephen E. Benson, Ph.D.
Physics	Jerry H. Wilson, Ph.D.
Political Science	Norman Provizer, Ph.D.
Psychology	Lyn Wickelgren, Ph.D.
Sociology/Anthropology	Kenneth M. Keller, Ph.D.
Speech Communications	Carl I. Johnson, Ph.D.
Director of the Institute for Intercultural Studies and Services	Akbarali Thobhani, Ph.D.
Director of the Institute for Women's Studies and Services	Jodi Wetzel, Ph.D.
Director of the Center for the Visual Arts	Sally Perisho, M.A.

School of Professional Studies

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Associate Dean	Mary A. Miller, Ph.D.
Department Chairs	
Aerospace Science	Robert K. Mock, M.S.
Civil and Environmental Engineering Technology	Eldon Lindimore, Ph.D.
Criminal Justice and Criminology	Joseph G. Sandoval, J.D.
Electronics Engineering Technology	Larry G. Keating, M.S.E.E.
Hospitality, Meeting and Travel Administration	Raymond Langbehn, M.A.
Human Performance, Sport and Leisure Studies	Marc Rabinoff, Ed.D.
Human Services	Jeffrey Haber, Ed.D.
Military Science (Army ROTC)	Major Steve E. Miller
Nursing and Health Care Management	Kathleen McGuire-Mahony, Ph.D.
Reading	J. Douglas Cawley, Ph.D.
Teacher Education and Director of Teacher Education and Certification	R. Jerrald Shive, Ed.D.
Director of the Child Development Center	Marjorie Petersen, M.A.
Director of Student Teaching	Daniel Alfaro, Ph.D.
Technology and Technical Communications	J.O. Yunker, M.S.
Director of the Institute for Gerontology	Eugene E. Dawson, Jr., Ph.D.
Director of the Institute for the Study of Drugs, Alcohol and Addictive Behaviors	Anne S. Hatcher, Ed.D.



ARArts Building
 AUAuraria Library
 BUParking Office
 CCChild Care Center
 CDChild Development Center
 CNCentral Classroom
 EGEmmanuel Gallery
 MRMercantile Restuarant

NCNorth Classroom
 PE.....Physical Education
 PP.....Physical Plant
 PS.....Public Safety
 RORectory Office
 SA.....St. Cajetan's Center
 SE.....St. Elizabeth's Church
 SFSt. Francis Center

SIScience Building
 SOSouth Classroom
 SU.....Student Union &
 Book Center
 TE.....Technology Building
 TV.....Tivoli
 WC.....West Classroom

The College

Metropolitan State College of Denver is the largest public, four-year, urban college in the United States with modified admission standards. Leaders in quality baccalaureate education, MSCD students, faculty, staff and alumni work to share the responsibility of the future.

Since its creation in 1965, the college has contributed to the vitality of downtown Denver and changed the face of learning in the metropolitan area with its phenomenal growth to approximately 17,800 students.

Metropolitan State College of Denver's success is reflected in the faces of its creative and determined students. Eighteen-year-olds take the first steps toward establishing a career, while young professionals seek career advancement. People re-entering higher education explore new careers and all find new opportunities. The average student is 27 years old, making classes a unique blend of the eagerness of youth and the wisdom that comes with maturity. Because the student population is so diverse, education at MSCD is a mutual learning experience for students and professors alike. There is a give and take between young and old, student and teacher — all learning from one another.

While MSCD's students are committed to learning, the faculty is committed to teaching. Other colleges emphasize research; MSCD's more than 360 full-time faculty members are first, and most importantly, teachers. They are available to their students both in the classroom and in their offices for extra help and advice. Many have extensive professional backgrounds, adding an invaluable dimension to their knowledge, and more than 80 percent have earned the highest level of academic degree attainable in their fields.

MSCD offers bachelor of arts and bachelor of science degrees in more than 55 areas — in business, human services, education, engineering technology, liberal arts, professional studies, science, and mathematics. Students can also pursue specific, individualized career choices through a contract major or minor. Several academic programs are the only ones of their type offered in the region, and many enjoy national reputations for excellence.

MSCD is not limited to degree-seeking students. A class in the latest computer technology may attract a Realtor with a fascination for high tech. Adults who are already successful in their careers may take a literature, philosophy, or history class and share a love of ideas. Active businesspeople may take advantage of an extended campus evening class in management or conversational French at Metro South or Metro North.

MSCD's impact upon the metropolitan community continues to grow each year as Denver increasingly becomes a national center of commerce and technology. The college considers itself a partner in Denver's future and seeks ways to contribute to the quality of urban life. MSCD students work for local businesses as interns, and many classes revolve around community issues. MSCD also extends learning opportunities beyond the boundaries of the Auraria campus through the Division of Off-Campus Programs, offering credit classes at locations throughout the metropolitan area, including special seminars and workshops for area professionals.

Additionally, the college reinforces its partnership with the community through jointly sponsored events which both entertain and educate MSCD students and the metropolitan community. Lectures by nationally known figures, concerts and plays, foreign-study programs, and community learning projects all bring the wealth of MSCD's resources into the neighborhoods of metropolitan Denver.

Metropolitan State College of Denver provides equal education and employment opportunities for all, regardless of race, color, creed, religion, age, sex, national origin, or veteran status.

Accreditation/Approvals

MSCD is accredited by the North Central Association of Colleges and Schools. Individual academic programs are accredited by the National Recreation and Park Association, National League for Nursing, the National Council for Accreditation of Teacher Education, the National Association of Schools of Music, and the Association of University Programs in Health Administration. The Civil Engineering Technology, Electronics Engineering Technology, and the Mechanical Engineering Technology programs are accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. The Department of Human Services has approval from the Council for Standards in Human Service Education, and the baccalaureate program in chemistry is approved by the American Chemical Society. The Drug, Alcohol, and Addictive Behavior Counselor program has the approval of the Colorado Department of Health. The Department of Accounting is approved by the Colorado State Board of Accountancy, and the Aerospace Science program has the approval of the Federal Aviation Administration.

Campus

Metropolitan State College of Denver is located in the facilities of the Auraria Higher Education Center (AHEC). The 169-acre campus is located adjacent to downtown Denver at Speer Boulevard and West Colfax Avenue. The Community College of Denver (CCD) and the University of Colorado at Denver (UCD) share the facilities with MSCD.

More than one million square feet of space for classrooms, laboratories and offices are included in the facility. Some administrative offices are in restored Victorian homes in Denver's historic Ninth Street Park located within the Auraria site. Other administrative offices have recently occupied quality space in the Terracentre at 1100 Stout. The campus features a child-care center; a block-long gymnasium with a swimming pool; areas for handball, soccer, baseball, and track; a student union; and a library, housing more than 600,000 volumes.

The Auraria Higher Education Center provides a variety of educational opportunities that meet the needs of the urban student. The three Auraria institutions are governed by separate boards and maintain their distinctive roles and missions. However, the concept of facility sharing affords the MSCD student the flexibility of taking lower-division courses at the community college, and graduate or specialized professional courses at the university. Metropolitan State College of Denver's four-year degree programs are coordinated with those of the other two institutions, and students may cross register for classes at the three institutions.

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

The Auraria Higher Education Center originated with the need to provide permanent facilities for three rapidly growing urban institutions. In 1974, the Colorado legislature created the Auraria Board of Directors to plan the campus, construct the buildings, provide a variety of additional centralized support services, and maintain the facilities. In 1972, the Colorado Legislature

The College

appropriated nearly \$40 million for the construction of the Auraria campus. Additional funds were contributed by the City of Denver, the federal government through the Department of Housing and Urban Development, and the State of Colorado. The Auraria Higher Education Center constitutes an example of creative cooperation by government at all levels.

Office of State Colleges in Colorado

The member institutions governed by the Trustees of the Office of State Colleges in Colorado are Adams State College, Mesa State College, Metropolitan State College of Denver, and Western State College. The purpose of the Office of State Colleges is to identify and facilitate cooperative efforts among the institutions. Such efforts lead to broader educational opportunities for students.

The registering authority of each member institution can provide any regularly enrolled student in good standing with the materials needed to enroll temporarily in any other member institution without incurring additional matriculation costs. Information concerning tuition is available at the host institution.

The enrollment status of the student at the host institution will be determined by the student's status at the home institution. Students should ascertain in advance of enrolling at an institution that desired courses will satisfy degree requirements at the home institution. The process of enrolling as a system student should begin at least one month prior to the beginning of the registration period at the host institution.

Application Instructions

Applications for admission are considered in the order in which they are received each semester. All credentials which are received by the college become the property of Metropolitan State College of Denver and will not be returned to the student. It is the responsibility of the applicant to notify the Office of Admissions and Records of any demographic or academic changes on the application for admission prior to the first day of classes. If demographic changes are not reported to the Office of Admissions and Records, it could delay the registration process for subsequent semesters. Failure to report academic changes may result in rejection, dismissal, and/or loss of credit.

To apply for admission:

1. Complete the application for admission included in the back of this catalog. Additional applications are available from the Metropolitan State College of Denver Office of Admissions and Records at Campus Box 16, P.O. Box 173362, Denver, Colorado, 80217-3362; 303/556-3058.
2. A \$10 non-refundable application fee must be submitted with the application for admission. The application fee must either be received or waived before the application can be considered. The application fee does not apply to tuition and fees. Re-admit applicants do not have to pay this fee.
3. Submit the completed application and application fee directly to the Office of Admissions and Records. The application and all required credentials (see admissions requirements below) should be received at least four weeks prior to the first day of classes.
4. It is the student's responsibility to request that all required credentials be mailed directly from the issuing institution or agency to the Office of Admissions and Records at Metropolitan State College of Denver. No hand-carried documents will be accepted.
5. Although an applicant's record may be summarized on one transcript, official transcripts from each institution are required.

Admissions Requirements

The college classifies applicants into two categories by age — those who are less than 20 years of age and those who are 20 years of age or older. Based on the college's modified open admissions system, each category has its own admissions requirements and procedures.

APPLICANTS WHO ARE LESS THAN 20 YEARS OF AGE

If you are less than 20 years old by September 15 for either the summer semester or the fall semester, or February 15 for the spring semester, you will be classified as a traditional applicant.

Freshman (first-time college student)

1. Applicants must request that the following information be mailed directly to the Office of Admissions and Records from the high school or testing agency:
 - a. ACT or SAT test results
 - b. high school grade point average
 - c. high school class rank
2. This information may be submitted at the end of the sixth, seventh, or eighth semester of high school but no later than four weeks before the expected term of enrollment. A final, official transcript with date of graduation is required no later than the fourth week of the term of enrollment to insure registration for the subsequent semester. Students should request and verify that the high school transcript with date of graduation has been mailed by the high school and has been received by the Office of Admissions and Records. Students will not be permitted to register after their initial enrollment unless this final transcript is received.
3. Metropolitan State College of Denver will admit students who are likely to complete an academic program successfully and who meet state requirements for the college as established by the Colorado Commission on Higher Education (CCHE).
4. Applicants who do not meet the stated admission requirements will be considered on an individual basis after careful review of all credentials, including letters of recommendation and/or personal interview. Some students may be accepted after successful completion of the Summer Bridge Program, which has been established with the Community College of Denver at Auraria.
5. Applicants who have not graduated from high school but have received the Colorado General Education Development (GED) Certificate or its equivalent will be accepted.

College Transfer

1. Applicants must request that the following information be mailed directly to the Office of Admissions and Records from the high school, testing agency, and/or college or university:
 - a. ACT or SAT test results
 - b. high school transcript
 - c. transcript from each college or university attended or currently attending
 - d. if currently attending, verification of enrollment
2. These credentials should be received at least four weeks prior to the first day of classes. All required credentials must be received before a final admissions decision can be made.
3. Metropolitan State College of Denver will admit students who are most likely to complete an academic program successfully and who meet state requirements for the college as established by the Colorado Commission on Higher Education (CCHE).

- Applicants who have less than a cumulative 2.00 grade point average from all colleges and universities attended will be considered on an individual basis after careful review of all credentials including letters of recommendation and a personal interview with an admissions counselor. Please call the Office of Admissions for additional information.

APPLICANTS WHO ARE 20 YEARS OF AGE OR OLDER

Applicants who are 20 years old or older by September 15 for either the summer semester or the fall semester, or February 15 for the spring semester, should read the requirements below for either a first-time college student or a college transfer student:

Freshman (first-time college student)

- Applicants will be admitted to Metropolitan State College of Denver upon indicating on the application for admission that they have graduated from high school or that they have received a General Education Development Certificate (GED).
- By signing the application for admission, applicants are certifying that they will request either a high school transcript with date of graduation or GED test scores be sent directly to the Office of Admissions and Records.
- Until the credential discussed in #2 above is received, a student will not be permitted to register for a second semester.
- The ACT or SAT is not required for admission but is highly recommended for advising purposes.

College Transfer

- Applicants will be admitted to Metropolitan State College of Denver upon indicating on the application for admission that they have graduated from high school or that they have received a General Education Development Certificate (GED).
- By signing the application for admission, applicants are certifying that they will request either a high school transcript with date of graduation or GED test scores be sent directly to the Office of Admissions and Records. In place of these credentials, college transfer students may have college transcripts, which indicate at least 30 semester hours or 45 quarter hours of transferable "C" work, sent directly to MSCD.
- Until the credential listed in #2 above is received, a student will not be permitted to register for a second semester.
- Applicants who indicate on their application for admission that they are seeking a degree at MSCD will be classified as non-degree-seeking until all required transcripts and the Transfer Credit Evaluation Card have been received by the Office of Admissions and Records. Applicants who indicate on their application for admission that they are not seeking a degree from MSCD may change their status by completing a Change of Status Form and submitting all required transcripts and the Transfer Credit Evaluation Card to Admissions and Records.
- The ACT or SAT is not required for admission but is highly recommended for advising purposes.
- Degree-seeking transfer applicants are required to have all college and university transcripts on file to receive a transfer evaluation.

Admission of Previously Enrolled Students

Former students who have not been in attendance at Metropolitan State College of Denver for one or more years should adhere to the following procedures:

- Submit a completed application for admission which can be found in the back of this catalog. Check off the re-

admission box on the top, right corner of the application. No application fee is required for re-admission.

- To insure processing, the application and any required credentials should be received at least four weeks prior to the first day of classes of the semester for which admission is sought.
- Former students who have attended other collegiate institutions since last attending MSCD must follow the appropriate admissions requirements for transfer students.
- Former students who are re-admitting after nine years of absence from the college are required to resubmit all credentials. Only non-degree-seeking MSCD graduates do not have to resubmit credentials.

Additional Admissions Programs

Summer Semester Only

Applicants who are applying for the summer semester and who do not wish to continue at MSCD after the summer semester may be admitted under a provisional status and are not required to submit admissions credentials. Please check the appropriate box under "MSCD Plans" on the application for admission. Applicants applying for the summer semester and who wish to continue for the fall or spring semester must meet stated admissions requirements.

High School Student Education and Enrichment Program

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

- is currently registered in a Colorado high school
- is maintaining a GPA of 3.0 or better
- is preferably in the senior year of high school
- can benefit from specialized or accelerated classes
- has demonstrated the ability to do college-level work

To apply for admission, the student must, in consultation with the appropriate high school authority, submit to the Office of Admissions at MSCD an admissions application with the required \$10 application fee accompanied by the following documents:

- recommendation stating how the student will benefit from early college attendance from a high school counselor or administrator
- written parental approval
- an official high school transcript

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

Transfer Credit Evaluation

Once all final official transcripts for degree-seeking students are received by the Office of Admissions and Records, the evaluation process begins. The student receives a transfer evaluation card which must be signed by the student's major department or school advisor. The card is then submitted to the Office of

The College

Admissions and Records. Within approximately four weeks, students receive two copies of the transfer credit evaluation, one of which is taken to the major and minor departments for advice on how credits might apply to their programs.

Transfer credits will be accepted under the following guidelines:

1. Credit must have been earned at an institution of higher education holding full regional accreditation.
2. Grades earned must be "A," "B," "C," or equivalent; however, only the credits will be shown on the MSCD academic record. Courses with grades of "D," "F," or similar grades will not be accepted in transfer.
3. Course content should be similar to those courses offered at Metropolitan State College of Denver.
4. A maximum of 64 semester hours from a two-year institution will be accepted and applied toward an MSCD degree. A maximum of 90 semester hours of credit will be given for acceptable work completed at a four-year institution or combination of two- and four-year institutions.
5. Students earning an AA or AS degree will enter with junior standing at MSCD, provided all courses included in the degree carry a grade of "C" or better and otherwise meet minimum MSCD standards for transfer credit, and with the understanding that some students will need to complete additional MSCD lower division program requirements.

International Education

In order to fulfill its appropriate role as a public urban institution, Metropolitan State College of Denver must be responsive to the changing qualities of the community it serves. Because Denver is a national center for commerce and technology, Colorado is affected by dynamic global relationships as well as national, state, and local policies. As technology draws the nations of the world closer together and Colorado becomes increasingly aware of its international role, educational institutions must increase their commitment to providing opportunities for international education. These opportunities exist for nationals enrolled at Metropolitan State College of Denver who wish to be involved with an academic experience outside of the United States, as well as internationals who feel they will gain from study at Metropolitan State College of Denver.

Admission of International Students

All students who declare a country of citizenship other than the United States on their applications for admission must contact the Office of Admissions and Records.

1. Admission of resident aliens (or refugees, political parolees, and political asylum cases, etc.) and students on temporary visas other than F-1:
 - a. Official transcripts including secondary level education should be submitted four weeks prior to the beginning of the first day of classes of the semester for which admission is sought.
 - b. Applicants may be required to pass an English proficiency examination.
 - c. Applicants may be required to register for and complete certain courses during their first two semesters.
2. Admission of applicants on student (F-1) visas:
 - a. International application for admission and fee must be received at least four weeks prior to the first day of classes for the semester of enrollment.
 - b. Applicants are required to submit the following documents as part of their application to the college: *international student application form, application*

fee, official transcripts from all secondary and postsecondary schools attended, evidence of English proficiency, and financial support documents.

- c. Official academic credentials should be submitted in the original language as well as in official English translation. Transcripts from American institutions should be sent directly to the college from the issuing institution.
- d. English proficiency may be demonstrated by attaining a score of at least 500 on the Test of English as a Foreign Language (TOEFL). Only scores from the international or special testing programs will be considered.
- e. The first semester's tuition and fees will be required prior to course registration for international students. Scholarship recipients are exempt from this requirement.
- f. Students are required to complete a minimum of 12 semester hours with a minimum 2.00 ("C") GPA each fall and spring semester.
- g. Applicants may be required to register for and complete certain courses during their first two semesters.
- h. More detailed information is contained in the international student brochure available in the Office of Admissions and Records.

If students are academically admissible and have met the minimum English proficiency requirements, they will be issued the U.S. Immigration Form I-20. Questions regarding the admission of students from abroad or permanent residents should be directed to the Office of Admissions and Records.

English Language

ESL Program

Metropolitan State College of Denver, like most colleges and universities throughout the United States, has found it necessary to establish ESL classes for limited English proficient students who are academically accepted into the college but who lack language skills necessary to succeed fully in a four-year college. The ESL program is designed to meet the specific needs of MSCD students.

The Spring International Language Center at Auraria

Intensive English classes at Spring International focus on all language skills: grammar, reading, writing, and listening/speaking, in addition to special electives that students can choose each term, such as GMAT or TOEFL preparation, vocabulary building, business concepts, and English for computers.

Five nine-week terms are offered throughout the year to enable students to complete their English study quickly. Students are placed into one of five levels, with standardized evaluation tests at the completion of each level.

International Studies

London Semester

Metropolitan State College of Denver, in cooperation with the American Institute for Foreign Study, has developed the London Semester and offers it with a slightly different academic focus each semester. Students who are in good academic standing and feel that they could benefit from a semester of study in London should contact the coordinator for International Education at 556-3143.

Extended Studies Trips

Metropolitan State College of Denver provides opportunities for academically qualified students to participate in study-abroad programs. These programs vary in length from a few weeks to a full semester. For further information, contact the coordinator for International Education at 556-3173 or the Extended Studies Office at 721-1313.

MSCD's Language and Culture Institute

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

Institute for Intercultural Studies and Services

The college provides an opportunity for students to study formally in international courses offered by various academic departments. Students interested in international coursework should contact the academic advisor of any of the three schools of the college. A cross-disciplinary contract major and minor arranged in International Studies blends historical, political, economic, cultural, and linguistic approaches and provides a diversified global perspective. Those interested in these or related degree fields should contact the director of Adult Learning Services.

Intercultural Curriculum

The college provides an opportunity for students to study formally in international courses offered by various academic departments. Students interested in international coursework should contact the academic advisor of any of the three schools of the college. Additionally, students may pursue a contract degree program such as international studies or international business. Those interested in these or related degree fields should contact the director of Adult Learning Services.

Recruitment and Retention of Students from Ethnic Groups

Metropolitan State College of Denver strives to enhance the educational opportunities for Denver area residents by offering a variety of well-structured early intervention, recruitment and retention activities. MSCD has established a strong network in the metropolitan area that assists students and other members of the community and informs them about higher education opportunities and how to go about receiving these benefits. A variety of counselors from different areas including admissions, financial aid, academic affairs, and student affairs are available to provide higher education counseling for both new and transfer students. Individuals from underrepresented groups interested in attending MSCD should contact the Office of Admissions and Records at 556-3058 for additional information.

Tuition Classification

A student is classified as an in-state or out-of-state student for tuition purposes at the time of admission. This classification is based upon information supplied by the student on the application for admission and is made in accordance with the Colorado Tuition Classification Law, CRS S23-7-101 et seq. (1973), as amended. Once determined, a student's tuition classification status remains unchanged unless satisfactory evidence that a change should be made is presented. A Petition for In-State Tuition Classification form and the evidence requested should be submitted to the Office of Admissions and Records 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 22 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 which provide objective evidence of intent are: (1) payment of Colorado state income tax, (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 peculiar to the individual can also be used to demonstrate the requisite intent.

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

Education Policy for People Over 60

Older area citizens are encouraged to participate in Metropolitan State College of Denver's programs and activities.

1. People 60 years or older who do not wish to earn credit are invited to attend class on a space-available basis, in classes of their choice, at either Metropolitan State College of Denver or at Extended Campus locations. There is no cost for these classes. These people may attend classes beginning the sixth day of each semester. Interested people should obtain a registration form from the Metro-Meritus Program in the Office of Adult Learning Services (556-8342). This form must be signed by the instructor granting approval and returned to the Office of Adult Learning Services. No college records of participation will be maintained.
2. People 60 years or older who wish to enroll for credit should submit required admissions and registration materials to the Office of Admissions and Records, Central Classroom Building, Room 103, 1006 11th Street. A college record of participation will be maintained.

Financial Aid Procedure

Philosophy

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 Metropolitan State College of Denver.

Estimated Expenses

For the 1991-1992 academic year, projected expenses are estimated as follows:

	Resident	Nonresident
Tuition and Fees	\$1,746	\$5,460
Room and Board	4,620	4,620
Books and Supplies	482	482
Transportation	896	896
Miscellaneous	1,096	1,096
	<u>\$8,840</u>	<u>\$12,554</u>

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

The College

Eligibility and Need

To qualify for financial aid, a student must demonstrate financial need, be a U.S. citizen or permanent resident alien, and be enrolled as at least a half-time student. Part-time students who qualify may be eligible for Pell Grants, Colorado Scholarships, Presidential Scholarships, Stafford Loans, Supplemental Loans to Students, PLUS Loans, Colorado Student Grant, Income Contingent Loans, and work-study awards.

Application Procedures

MSCD uses the American College Testing (ACT) Service, a national, nonprofit, need analysis organization, to determine financial aid eligibility. Returning MSCD students may request application forms from the Financial Aid Office. Transfer students can obtain application forms from their current college or university. Entering college freshmen should obtain application forms from their high schools or from the MSCD Financial Aid Office; students should obtain forms as early as possible, preferably by mid-February. Transferring applicants must supply the MSCD Financial Aid Office with financial aid transcripts from all schools previously attended. Detailed information concerning application procedures is available in the MSCD Financial Aid Office.

Financial Aid Programs

The aid programs introduced below are available to undergraduate students only. Students who hold baccalaureate degrees are eligible to apply for Stafford Loans, Supplemental Loans to Students, PLUS Loans, and Colorado Work Study only. The amount of funds made available depends upon 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

Pell Grant: Eligibility is restricted to undergraduates enrolled at least half time (six semester hours a term). The maximum award for students enrolled full time is \$2,400.

Supplemental Educational Opportunity Grant (SEOG): Eligibility for the SEOG is restricted to undergraduates enrolled full-time in a degree program who demonstrate a high need for financial assistance. The amount of the award varies from \$100 to \$4,000 per year, according to the availability of funds.

Colorado State Grant (CSG): Students enrolled at least half-time who are permanent residents of Colorado are eligible for this grant. Awards vary from \$50 to \$2,000 per year.

Colorado Student Incentive Grant (CSIG): Full-time students who are permanent residents of Colorado are eligible for this grant. A maximum award is \$2,500 per year.

Scholarships

Scholarships administered by the Financial Aid Office are based on scholastic ability. Please contact the Financial Aid Office for a complete listing of available scholarships.

Presidential Scholarships: The scholarships include four-year scholarships for entering high school students and two-year scholarships for transfer students. Scholars receive up to \$600 per semester to pay mandatory tuition and fees.

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

Athletic Scholarships: MSCD has a limited number of athletic

scholarships. Applications and additional information are available from the MSCD Athletic Department.

Private Scholarships: Students should refer to the MSCD *Student Scholarship Handbook* for information and a listing of scholarships. Students should also contact academic departments and the reference desk at the Auraria Library for assistance in locating sources of such scholarships.

Loans

Each of the following is a loan which must be repaid by the student:

Perkins Loans: Undergraduate students enrolled full-time in a degree program are eligible for this loan. During the freshman and sophomore years, a student may borrow up to \$4,500; through the junior and senior years and postbaccalaureate study, a student may borrow a total of \$9,000. Upon request, the Financial Aid Office provides additional information concerning Perkins loans.

Stafford Loan: This loan is available to undergraduates and postbaccalaureate students enrolled in a degree or certificate program. Applications are available from the student's lender of choice or from any college financial aid office. Applications must first be submitted to the Financial Aid Office for preliminary processing. At MSCD, freshmen and sophomores may borrow up to \$2,625 per year. Juniors, seniors, and postbaccalaureates may borrow up to \$4,000 per year. The aggregate amount that may be borrowed throughout a student's college education is \$17,250. Because MSCD does not offer masters and doctoral degrees, postbaccalaureate students at MSCD are limited to undergraduate loan maximums.

Supplemental Loans for Students (SLS) and PLUS Loans: At MSCD these loans are available to independent students officially admitted and enrolled at MSCD and to parents of dependent students. Applications are available from MSCD or from lenders which participate in this program. Applications must first be submitted to the Financial Aid Office for preliminary processing. At MSCD independent students may borrow up to \$4,000 per year with an aggregate limit of \$20,000. At MSCD, parents of dependent students may borrow up to \$4,000 per year, *per student*, with an aggregate limit *per student* of \$20,000.

Income Contingent Loan (ICL): This loan is available to undergraduates enrolled at least half-time in a degree program. Postbaccalaureate students are not eligible. Freshmen and sophomores may receive up to \$2,500 per year, juniors up to \$3,500, and seniors up to \$4,500. The aggregate maximum is \$17,500.

Additional Loan Programs

Raymond R. Uhl Loan: Established in memory of Raymond R. Uhl, former MSCD student killed in Vietnam, this fund is to assist students who need financial help but are not eligible for other types of aid. Maximum loan is \$2,000 and terms of repayment are arranged according to the individual student's circumstances.

MSCD Foundation and Other Emergency Loans: Should there be a delay in the disbursement of funds, the Financial Aid Office is able to advance limited funds to students, provided that financial aid has been previously awarded. The average loan is \$200 per semester. The loan must be repaid at the end of the semester in which the funds were received or as soon as financial aid funds are disbursed to students, whichever comes first.

Information on additional alternate loan programs from private sources is available at the Financial Aid Office.

College Work-Study: The State of Colorado and federal work-study programs provide part-time employment during the summer and academic year. Undergraduate students may receive either type of award. Postbaccalaureate students are eligible to receive only State of Colorado work-study. Only permanent Colorado residents are eligible for State of Colorado work-study awards.

Awards range from \$200 to \$5,000 per fiscal year. The average award is \$2,000. The maximum hours students may work is 30 hours per week average while classes are in session and a maximum average of 40 hours per week between semesters.

Employment: Many students who do not qualify for work-study find part-time employment to cover a portion of their educational expenses. The Auraria Placement Office assists students in finding part-time jobs.

Other Forms of Assistance

Colorado No-Need Work-Study: Students enrolled at least half-time who are permanent residents of Colorado and have either unmet need eligibility, or who do not qualify for need-based financial aid, are eligible for this award. Students may apply for these funds at the Financial Aid office.

Financial Aid as a Form of Payment: Students who have been awarded financial aid have the option of using that aid as their form of tuition payment during phone registration each semester. Once the award has been verified by the Business Office, the student will not be required to pay the tuition and fee charges until the aid is disbursed. Students receiving any type of financial aid are eligible for this service each semester for which aid has been awarded. Related information is provided in mail-in and phone-in registration materials and in class schedules.

Resource Expectations: Students attending MSCD must assume responsibility for the cost of their education. Tax-supported aid programs exist to supplement student financial resources, not to replace them. Prospective financial aid applicants should refer to the Financial Aid Office for details concerning students' resource expectations.

The Aid Package

Once student eligibility is determined, an aid package is developed which depends upon the availability of funds and the eligibility of the applicant in relation to that of other students. Although it is not always possible to do so, the Financial Aid Office attempts to fully meet student eligibility. To facilitate the work of the Financial Aid Office, applicants must obtain all information and forms from designated sources and submit the required materials to the appropriate office according to established schedules.

Receiving a scholarship has no effect on a student's aid if he or she is not receiving funds from ICL, GSL, Perkins, SEOG, CSG, CSIG, or College Work-Study. Students receiving aid from any of these programs are limited to a maximum amount of aid. A student whose full need has been met prior to receipt of a scholarship will have his or her aid reduced by an amount equal to the scholarship. If the student's full eligibility has not been met, the scholarship can be allowed to satisfy the unmet eligibility. Each student's situation is treated individually.

Award Notification

When the Financial Aid Office has determined the kind and amount of aid for which a student qualifies, the student is notified of the award by letter. The letter also stipulates the conditions of the award. Students awarded aid must sign the statement of education purpose on the award letter and the Anti-Drug Abuse Act certification.

Disbursement Procedures: a. Stafford Loans, Supplemental Loans to Students and PLUS loans: All Stafford Loans and Supplemental Loans to Students are required to be disbursed in two disbursements. Contact the Financial Aid Office for disbursement dates. The first disbursement is usually available within 35 days after the beginning of the semester for which the loan is intended. Stafford and SLS checks will be processed at the Financial Aid Office and released through the Business Office. Students are required to pay any outstanding balance owed to

MSCD at the time the check is released. PLUS checks are mailed directly from lenders to parent borrowers and may or may not be disbursed in two disbursements.

b. Work Study: Work study earnings are paid monthly and are treated as wages earned. Outstanding balances owed to MSCD are not deducted from these earnings. Students are strongly advised to pay any outstanding balance as soon as a work-study check is received.

c. All other aid: Beginning on the first day of classes each semester, students receiving aid other than those listed above may come to the MSCD Business Office to pick up their financial aid. The Business Office will deduct any outstanding balance owed to MSCD and issue a check for any remaining funds. Students who still owe a balance after all aid has been paid will be issued a bill.

Repayment Policy

Students who withdraw from MSCD prior to completion of a term must 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 may be disbursed to the student, whichever occurs first. Repayment is made to the MSCD Business Office.

Student Rights and Responsibilities

Academic Progress Requirements

Financial aid recipients are required to maintain satisfactory progress towards their educational objectives in order to continue to receive aid (2.0 GPA; complete at least two-thirds of the credits attempted each semester; and be enrolled the equivalent of not more than 12 full-time semesters). Detailed information outlining the requirements is available in the Financial Aid Office. Failure to maintain satisfactory progress may result in cancellation of aid for subsequent terms of school years.

Change in Status

The financial aid award may be adjusted throughout the award period to reflect any change in the student's resources or enrollment status or in institutional, state, or federal funding.

Renewal of Financial Aid

Students must apply each year for continued aid. Renewal of financial assistance depends on the student's academic performance, financial eligibility, and the availability of student financial aid funds.

Students should contact the Financial Aid Office for details concerning Metropolitan State College of Denver financial aid policies and procedures.

Costs

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

Tuition and College Service Fees

Tuition and College Service fees are determined by the Trustees shortly before the beginning of each academic year. Information regarding tuition and fees is published in the current *Class Schedule*.

TUITION AND FEES ARE PAYABLE AT THE TIME OF REGISTRATION.

Standard Fees

An application fee is required of all applicants for admission to the college. This fee is non-refundable and will not be applied to tuition. \$10

Transcript fee, per transcript. \$1

Graduation fee \$20

Special Fees

Returned check penalty \$17

Course Audit Policy

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

Health Insurance

Single coverage is mandatory for students registered for 10 or more semester hours providing no other comparable health insurance is in effect. Students may apply for a waiver if they have other coverage. A waiver need only be submitted once, because once established, it will remain in effect until rescinded in writing by the applicable deadline. Students enrolled for less than the full-time amount (10 hours during fall and spring semester; eight during summer semester) are not eligible for the college's group coverage. In addition, if a full-time student decreases the amount of semester hours to below full-time status (10 hours during fall and spring semester; eight during summer semester) within 28 calendar days from the first day of the semester, the student loses insurance eligibility. Students who have coverage in the spring semester are eligible to purchase insurance coverage in the following summer semester even though they may not be registered for classes in the summer. For complete details, contact the Accounts Receivable Office at 556-3100. Optional coverage is available for dependents of full-time students.

Other Cost Information

The cost of books and supplies averages \$350 to \$500 per academic year with the highest cost during the first semester of attendance. Other costs such as room, board, clothing, transportation, and other expenses will vary according to individual need.

Tuition Adjustments

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

Student Affairs

The Office of Student Affairs coordinates a wide range of service programs, such as financial aid, recreation, legal services, student activities, student publications, health services, and counseling. Students are encouraged to get involved in several activities and use the support services whenever necessary.

Conduct of Students

Metropolitan State College of Denver policy provides students the largest degree of freedom consistent with good work and orderly conduct. The college publishes standards of conduct, however, to which students are expected to adhere. Information regarding students' rights and responsibilities, including the Student Due Process Procedure (the procedural rights provided to students at MSCD before disciplinary action is imposed), is available in Central Classroom 107-A.

Counseling Center

The Counseling Center exists for the purpose of providing professional assistance in three related areas to all students presently enrolled at MSCD or MSCD alumni: (1) academic support programs, (2) career development and career decision-making, and (3) counseling for personal growth and change. These services are provided in a variety of forms and settings that include formal classes, workshops, seminars, counseling, and educational groups, as well as the traditional one-to-one setting.

Most group programs begin at the start of each semester and interested students should register prior to or during the first week of classes. Students desiring assistance are encouraged to contact the center personally to arrange an appointment or to register for one of the programs listed below.

The Counseling Center is an accredited member of the International Association of Counseling Services, Inc.

Academic Support Programs:

Test Anxiety Reduction: This workshop is designed for students whose anxiety about taking tests interferes with studying and test performance. Participants will learn skills to change the thinking that leads to anxiety, learn to relax, and learn to study and take tests more effectively.

Career Development and Career Decision-Making:

Self-Assessment/Life-Planning Workshops: These three-session workshops are held at various times throughout the semester and participants will complete exercises and inventories to indicate interests, values, achievements, and personality characteristics. Workshops are free for MSCD students; a fee is charged for non-students.

Career Assessment Screening: Students who are initiating the career decision-making process will meet for initial screening. Career testing will be carried out, and an overview of the process and the services available will be presented. Participants will then be referred to an appropriate program.

Personal Growth and Change:

Emphasis is placed on helping students with any problems that interfere with achieving success at the college. The student must initiate contact, or be referred by a member of the professional staff of the college, in order to receive assistance. Information disclosed in counseling is held in strictest confidence and is never released without the written consent of the student. Private one-to-one assistance in each of the areas described below is available for those students who do not choose to become a member of a workshop, seminar, or group.

Personal Growth and Development Program: Participation in this low-structure group setting is designed to develop skills in communicating honestly, directly, and comfortably with other people and to promote personal growth and change through self-exploration in a supportive atmosphere. The group deals with personal problems such as fears, doubts, frustrations, conflicts about school, job, family, sex, loneliness, and dating.

Rational Living Workshop: The workshop provides an opportunity to become acquainted with the fundamentals of rational emotive training and to apply these principles to problem areas specific to each individual's life. The process involves developing an awareness of self and of the emotional self-defeating thought patterns that have been learned. This opportunity to learn effective emotional management and positive behavior skills is provided through discussions, lecture, role playing, and group interaction.

Anxiety Reduction Workshops: Anxiety is a learned emotional reaction that can be reduced or eliminated entirely by relearning. The Counseling Center utilizes the desensitization technique (i.e.,

relaxation and counter-conditioning) to help eliminate inappropriate anxiety reactions. Four two-hour workshops are required to complete the program.

Introduction to Biofeedback Training: This two-session group is designed for those people who want more information about biofeedback training. Participants who desire treatment will be scheduled for continuation in the biofeedback lab.

Decision-Making/Goal-Setting: Participants complete an assessment inventory that provides information about the manner of gathering and processing information and making decisions. The results are discussed during the second session and provide a framework for learning additional decision-making and goal-setting techniques.

Assertiveness Training: Participants learn techniques to help eliminate difficulties in asserting themselves. They learn (1) how to recognize assertion problems, (2) simple ways to rid themselves of anxiety, and (3) ways to build assertive skills to deal effectively with a wide variety of common problems.

Stress Reduction/Relaxation Techniques: Students learn and practice a progressive relaxation technique. A theoretical understanding of the benefits and the practical application of relaxation are emphasized.

Stress Management Workshop: A variety of techniques for managing fears, anxiety, and generalized stress are taught.

Veterans Upward Bound

Veterans Upward Bound at Metropolitan State College of Denver is a federally funded program designed to identify, recruit, and motivate veterans to use their VA benefits in pursuit of personal career goals through higher education.

Veterans Upward Bound provides remedial and tutorial help so that survival in academic or vocational/technical programs is maximized. This is done during a 12-week trimester. Ancillary services such as career counseling, financial aid advisement, psychological counseling, and job placement are also provided for the participant.

High School Upward Bound

The 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. Basic academic skill preparation in reading, writing, and mathematics is part of a comprehensive counseling and enrichment program for the purpose of developing creative thinking, effective expression, and positive attitudes toward learning. The students are recruited at the beginning of their sophomore year in high school from five target area high schools located in Denver County (East, Lincoln, Manual, North, and West high schools).

Special Services Program

The purpose of the Special Services Program at Metropolitan State College of Denver is to provide educational assistance for selected students who, because of financial and/or other circumstances, may otherwise be denied a chance for participation in higher education programs. Academic assistance is provided for students on the basis of individual need. Courses in English, reading, and communication are offered for college credit, coupled with tutorial assistance. These courses are designed to strengthen and supplement a student's basic educational skills so that she or he may better address the requirements of a college course load. Other supportive services available are counseling, testing, assistance with financial aid forms, and, when possible, assistance in attending social and cultural events to enhance the student's experience at Metropolitan State College of Denver.

Servicemen's Opportunity College

Metropolitan State College of Denver has received recognition as a Servicemen's Opportunity College. Further information can be obtained from the Office of Admissions and Records.

Veterans Services

The Office of Veterans Services is designed to provide student veterans, and veterans in the community, with a variety of outreach, recruitment, and retention services. These include assistance with problems involving checks, tutorial and counseling assistance, and many referrals to both on-campus offices and community services. The office also certifies student veterans and dependents for their VA educational benefits.

Student Health Clinic

All MSCD students enrolled for at least one credit are entitled to medical services at the health center. Students are not required to carry the Student Health Insurance to use the health center. Your health plays a vital role in how successfully you achieve your academic, social, and personal goals during college.

Many medical services are provided by the health center physicians, nurse practitioners, and walk-in R.N.'s who help staff the health center. These services include the evaluation and treatment of health problems/illnesses, lab testing, physicals, and women's health care (pap smears, birth control supplies). Medications can be purchased at the health center at the time of your visit.

Measles/Mumps Immunizations

Beginning fall semester, 1992, all *newly admitted* students born after January 1, 1957, will be required to submit proof of two (2) doses of measles/mumps vaccine administered after the age of 1 year by a licensed physician or authorized health care provider. By July 1, 1995, *all* students born after January 1, 1957 will be required to comply with these immunization provisions. Specific instructions will be included in the class schedules beginning with fall semester, 1992.

Student Health Insurance

The Student Health Insurance is a group mandatory-with-waiver policy for full-time students. The insurance premium for students taking 10 or more semester hours is included in the student fee assessment each semester. Students enrolled for less than the full-time amount of semester hours (10 hours during fall and spring semesters; eight hours during summer semester) are not eligible for the college's group coverage. In addition, if a full-time student decreases the amount of semester hours to below full-time status (10 hours during fall and spring semesters; eight hours during summer semester) within 28 calendar days from the first day of the semester, the student loses insurance eligibility. The Student Health Clinic coordinates all insurance claims and forwards them to the insurance company for payment of benefits.

Eligible students who have comparable insurance coverage may waive the insurance premium and not participate in the program. Proof of comparable insurance and a waiver form must be completed and turned in to the Business Office within the first three weeks of the semester. A waiver, once in place, will continue until rescinded in writing by the student.

Optional coverage is available for dependents of insured students who are enrolled for 10 or more semester hours during fall and spring semesters and eight or more semester hours during summer semester. Premiums for optional coverage must be paid at the Business Office during the first three weeks of each semester.

The policy is in effect 24 hours a day and covers the period of time from the first day of classes of the semester to the first day of

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classes of the following semester. Insurance brochures listing other benefits, as well as insurance claim forms and information, are available at the Student Health Clinic, Room 140, Student Union. The group policy number is G 3392.

Student Activities

Metropolitan State College of Denver's Office of Student Activities offers concerts, dances, leadership development programs, student clubs and organizations, lectures series, art shows, and a myriad of other co-curricular activities for the students of Metropolitan State College of Denver.

In addition to providing social, cultural, and recreational activities, the Office of Student Activities encourages and supports the development of a wide range of professional, social, academic honorary, and special interest student organizations.

The Office of Student Activities is on the second floor of the three-story Student Activities Center wing of the Auraria Student Union. The activities wing houses the clubs and organizations, student publications, and the administrative offices of the Student Activities staffs of the three colleges on the Auraria campus.

Campus Recreation

The Campus Recreation Program at Metropolitan State College of Denver offers a comprehensive leisure service for the students, faculty, and staff of MSCD. It complements the academic mission of the college through enrichment of student life and development of a lifetime recreational philosophy. The program is composed of the following five major components: informal recreation, leagues and tournaments, club sports, outdoor adventure, and special events.

Informal recreation, the largest component, is designed to make the facilities available for recreational use for the general population of the college community. Among the facilities available are a 25-yard indoor swimming pool, eight handball/racquetball courts, two squash courts, two weight rooms, volleyball courts, four basketball courts, twelve tennis courts, a dance studio, and outdoor athletic areas (baseball field, softball field, and track). In addition, two aerobic sessions are offered each weekday.

Organized intramural events are offered throughout the year. Whenever possible both competitive and recreational divisions are offered to ensure participation for all ability levels. Included are activities such as golf, racquetball, and tennis tournaments, flag football, softball, and basketball leagues.

Club sports is intended to meet the needs of individuals and groups who are involved in sport activities at an extramural level. Some clubs which have longevity in the program are TaeKwonDo, lacrosse, rugby, and cheerleaders.

Outdoor adventure provides organized trips, equipment rental, workshops, and seminars. The goal of this division is to provide alternative activities for individuals interested in outdoor pursuits.

During the academic year, Campus Recreation conducts activities that appeal to the general college population. These events provide the opportunity to participate in many activities that are associated with college life.

Auraria Child Care Center

The Auraria Child Care Center is a nonprofit organization which provides a high quality child care and preschool program for the children of students, faculty, and staff of the Auraria Higher Education Center.

The center operates from 7 a.m. to 6 p.m. and is fully licensed by the Colorado Department of Social Services to serve 150 children. It is divided into two toddler, three preschool, and one kindergarten/after school classroom. Children must be 18 months to eight years of age to attend.

The philosophy of the center is to foster the development of competence in intellectual and social skills and to provide a safe, nurturing environment. The children's program involves the assessment of individual needs and establishing goals and activities appropriate for development. Close parent-teacher communication is a key to the responsive, individually oriented program provided at the center.

Parents may register their children on a full-time, part-time, or hourly basis to accommodate students' varying class schedules. For additional information, please call 556-3188.

Career Services

Career Services offers assistance to students and alumni of MSCD in planning their careers, finding off-campus jobs while enrolled, and seeking employment upon graduation.

Specific services offered by the center include career interest and personality testing, and workshops focusing on career planning, resume preparation, job search strategies and interviewing skills. Professional counselors are available for individual appointments. The student employment service and job vacancy listing are also housed in the Career Services Center. The Career Services Center is located in Arts Building 177 and the telephone number is 556-3477.

Campus Career Library

This library contains resources to help with the career planning and job search process. Information such as employer directories, salary surveys, and career assessment resources are available.

Discover

Discover is a computerized guidance system which contains specific occupation information, assessment inventories with immediate results, and nationwide college information. Trained advisors are available to assist users of the system.

On-Campus Interviewing with Employers

Employees visit the campus October through December and February through May to interview students graduating in any particular academic year.

Disabled Student Services

The Office of Disabled Student Services provides academic support services to disabled students at MSCD and UCD. Services include notetaking, interpreting, provision of taped texts, admissions and registration assistance, exam assistance, and handicapped parking permits and information.

Information and Referral Services

This office is a central information source which provides assistance to prospective students seeking enrollment at CCD, MSCD, or UCD. Tri-institutional tours of the Auraria campus are provided to prospective students on a prearranged basis.

International Programs

The Office of International Programs assists MSCD students by providing counseling on immigration issues; host family accommodations; support for personal adjustment; liaison with consulates, missions, embassies, and foreign organizations; and other pertinent information for foreign students. The office also provides information on study abroad programs to U.S. and foreign students.

Off-Campus Housing Services

This office helps students locate housing. Services offered include computerized rental and roommate listings and housing fairs on the first day of classes. Counseling on budgeting, on landlord/tenant rights and responsibilities, and roommates is also provided.

Colorado Rehabilitation Services

The Office of Colorado Rehabilitation Services is a campus branch of the State Department of Social Services. Services offered to help eligible disabled students to become suitably employed include job seeking, skills training, vocational testing, counseling and guidance, physical and mental restoration services, and referral to additional sources of financial aid.

The Auraria Library

The Auraria Library provides a wide variety of learning resources for the students and faculty of Metropolitan State College of Denver and the other Auraria institutions. The library has almost 600,000 volumes of books, microforms, and bound periodicals in addition to more than 1,900 current periodical and newspaper subscriptions. Collection development efforts are focused on providing a strong base for learning/teaching efforts on campus and on developing in-depth collections in the fields of public administration, architecture and planning, applied mathematics, educational administration, and education technology. The main collection is supplemented by the Architecture and Planning Branch Library which is located in the Dravo Building, third floor, and open to the entire campus. As a member of the Colorado Alliance of Research Libraries (CARL), the Auraria Library has access to 2,500,000 volumes from Colorado member libraries and, through a national network, to an additional 15 million volumes available through inter-library loan.

All students are encouraged to take the 50-minute self-guided audiotape tour of the library in order to familiarize themselves with the resources and services available to support their academic pursuits. Special services offered by the library include an on-line public access catalog, computerized bibliographic searches, library orientation and instruction for groups and individuals, a depository of U.S. and Colorado government publications, and media listening and viewing facilities.

The Media and Telecommunications Division of the library also has an internship program and a self-service graphics lab which might be of particular interest to students.

Student Union

The Auraria Student Union serves as the location for out-of-class activities and services for all Auraria campus students and staff. It is the focal point for many cultural, social, and recreational activities of the college community. The Student Union contains a bookstore, gameroom, cafeteria, Mission, meeting and conference facilities, student activities offices, health center, student organizations, and a variety of lounges for study and relaxation. The Student Union's lower corridor contains a housing board, ride board, and other public transportation information.

The Conference Services Office is located within the Student Union. This operation schedules all facilities for non-academic use and coordinates any services necessary for the events of campus departments or organizations. For information or to reserve a room, call 556-2755.

The Student Union is located at Ninth and Lawrence streets.

Metropolitan State College of Denver Child Development Center

The MSCD Child Development Center provides exemplary, on-campus children's programs: during the fall and spring semesters the center offers pre-school programs; in the summer it provides a Summer Enrichment Program for elementary age children. Available to the Auraria campus and to the Denver community, these programs are part of the MSCD Teacher Education Department and demonstrate a model of excellence for MSCD teacher education students.

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 which meet the developmental needs of the children. MSCD teacher education students also work in the classroom providing a high adult/child ratio with opportunities for small groups and individual attention.

The preschool program combines the best thinking and research in early childhood education. There are two preschool classes available: 8:30-11:30 a.m. for children 2 1/2 to 4 years old; 12:30-3:30 p.m. for children 4 years old by September 15. There is also an hour of child care available before and after each preschool class, allowing parents the option of placing their children for up to five hours.

The Summer Enrichment Program is academic in content but recognizes children's needs for fun and different learning experiences in summer. Our approach ensures that children enjoy their summer learning opportunities. There are two classrooms: the younger one for children entering kindergarten through second grade in the fall; the older one for children entering second grade through fourth grade in the fall. There is a Day Program from 9:00 a.m. to 3:30 p.m. and an Extended Program from 7:00 to 9:00 a.m. and from 3:30 to 6:00 p.m.

The staff is proud of these programs and welcomes your visit to observe the facility and programs at the Child Development Center on the Auraria Campus. Please stop by the center or call 556-2759 for more information.

Auraria Department of Public Safety

The Department of Public Safety provides professional law enforcement services for the Auraria Higher Education Center. Peace officers patrol the campus 24 hours a day; trained dispatchers are on duty at all times to receive calls. Calls warranting police or emergency services should be directed through the emergency number: 556-2222.

The Transportation Department offers many options to Auraria commuters. Parking is available in daily fee lots at \$1.25-\$2.00 per day. The Parking and Transportation Center (PTC) located at 7th and Walnut has added more than 1,700 new parking spaces to the campus. Parking is available in the PTC for \$2.00 per day. For easy entrance/exit to the PTC and other designated lots, a reusable debit card can be purchased and a cash value encoded on its magnetic strip.

Visit or call the parking office, located in the PTC, for brochures, maps, and additional information about locations, costs, handicapped parking, motorcycle parking, evening escort service, and the Motorist Assist Program. Auraria Safety and Transportation/Division: 556-2000.

Academic Information

The college operates on the semester system with each semester during the academic year consisting of 15 weeks of instruction followed by a week of examinations. Running concurrently with the 16-week courses are modules, scheduled to begin on the first, sixth and eleventh week of the 16-week semester. During any 16-week semester students may enroll in 16-week courses, five-week courses, or combinations of both, as long as the limitations outlined under course load are not exceeded.

The college also offers either an eight- or 10-week summer term during which students may enroll for either eight- or 10-week courses, four- or five-week courses, or combinations of both. The course load restrictions are adjusted to be equivalent to those of the regular academic year.

Classes are scheduled during the day and in the evening in order to accommodate people who are employed. Students who are planning to take the majority of their classes in the evenings should check with appropriate department chairs about the availability of courses in their major during evening hours. Enrollment can be on a full-time or part-time basis and can be for the purpose of pursuing a bachelor's degree, improving vocational or professional competence, or learning about particular areas of interest for cultural or intellectual reasons. Please refer to the *Class Schedule* for current calendar information.

Admission and Registration

Students who have not previously attended Metropolitan State College of Denver should review the college's admission requirements.

All continuing students in good standing at Metropolitan State College of Denver are eligible to register each semester.

Students may maintain the status of continuing student while absent from the college; however, following two full semesters of absence, students should review their status with the Office of Admissions and Records to determine whether an updated application for re-admission will be required.

A student may register for classes in several ways. Information on the registration procedure and registration dates are published in the *Class Schedule* which is mailed to all continuing students. Students are responsible for insuring that there is a correct and up-to-date address on file with the college. Address changes may be made with the Office of Admissions and Records.

Registration procedures and dates for module classes are described in the *Class Schedule*. For further information regarding registration, please call 556-2950.

Orientation

All first-time college students, regardless of age, and all transfer students less than 20 years old are required to attend an orientation session. Re-admit students are encouraged to attend an orientation session. Information is provided concerning college requirements, class scheduling, registration procedures, college services and resources, transfer of credit, academic advising, choice of major, and career counseling. Information is also available regarding special programs offered by the college and its various departments. Orientation sessions are offered to freshmen, transfer students, adults, reentry women, and parents of new freshmen. For additional information, call 556-4055.

Assessment Requirements

Reading, Writing, and Mathematics Placement Examinations

All first-time college students are required to take a series of three exams before registering for their first semester classes. The

exams measure college entry-level skills in reading, writing, and mathematics, and the scores are used to help advisors and students select appropriate courses. For additional information please call 556-3677.

Reading, Writing, and Mathematics Proficiency Examinations

Prior to or at the completion of 60 semester hours at MSCD, students must take a series of three exams that measure proficiency in reading, writing, and mathematics. These exams should be taken concurrent with or after appropriate coursework in the academic area has been completed. All students who have completed more than 60 semester hours at MSCD and have not passed all three exams will have their registration encumbered the following semester until they see an advisor in the Academic Assessment and Support Center. For additional information please call 556-3677.

General Studies Examinations

In their junior year, students may be required to participate in an assessment of their general education.

The MSCD faculty has determined educational goals or outcomes that it wants its graduates to achieve. A copy of those goals and the methods by which their achievement will be measured can be obtained from the department office.

The First Year Program

The First Year Program is designed to unify and coordinate college efforts to help entering students toward a successful first year. The program provides intensive advising, course selection guidance, and academic monitoring throughout the first year, as well as coordinating academic support services for freshmen. Additionally, the program offers a First Year Seminar course 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 are required to 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, please call 556-8447.

Academic Advising

Academic advising is available in the Academic Assessment and Support Center. Continuing and prospective students seeking these services should communicate with the coordinator of advising for the appropriate school. The Academic Assessment and Support Center is responsible for the advising of all undeclared majors at MSCD. For additional information, please call 556-4327.

International Student Advising

Special academic advising is available for foreign born students; the major emphasis of this advising is on the unique aspects of the foreign student's academic study. Assistance is available to assess and place students in English as a Second Language (ESL) classes which are appropriate for their individual needs and which will enhance academic success. For additional information, please call 556-2533.

International Studies

Metropolitan State College of Denver provides opportunities for academically qualified students to participate in study-abroad programs. These programs vary in length from a few weeks to a full semester. For further information, contact the Office of Off-Campus Programs.

The Honors Program

The MSCD Honors Program provides an intense, interdisciplinary academic program for highly motivated students whose intellectual capabilities suggest a broader spectrum of needs and interests. The program encourages individuality by responding to the diverse educational needs of students. Its integrated approach strengthens the program's foundation and provides a cross section of thought-provoking perspectives.

Honors students realize their learning potential through creative inquiry, independent thought, and critical examination. Honors professors serve as mentors to guide students in fulfilling their intellectual pursuits and dreams. Finally, while the Honors Program encourages independent thought and individuality, it also inspires students to work together, forming a community of scholars who learn from one another. Classes are generally small to ensure the exchange of knowledge and philosophies.

Available to students are both the honors core and a number of departmental honors courses. There are three Honors Awards available: 1) Junior Honors Award (15 semester hours); 2) Senior Honors Award (15 semester hours which includes a thesis); and 3) an MSCD Honors Program designation on the MSCD diploma (24 semester hours).

An official MSCD Honors Application form may be obtained from the MSCD Honors Program director. In addition to the MSCD application form, an interview by the Honors Council is required of prospective honors students. It is highly recommended that all honors applications be completed by mid-July. Furthermore, there are a number of full tuition scholarships available. Additional information on the Honors Program is available by calling 556-4865.

Required Honors Core		Semester Hours
HON 275	The Legacy of Arts & Letters I	3
HON 276	The Legacy of Arts & Letters II	3
HON 295	The Art of Critical Thinking	3
HON 380	Revolutions and Social Change I	3
HON 381	Revolutions and Social Change II	3
HON 385	American Culture I	3
HON 386	American Culture II	3
HON 492	Senior Honors Seminar	3
HON 495	Senior Honors Thesis	3
Total Hours for Honors Core		27

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. The college requires that a student must complete 30 semester hours of college coursework with a minimum 2.5 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 which 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.

298-1-3 (Variable credit) Cooperative Education

Prerequisite: Sophomore standing and permission of instructor

An entry level work experience in a private company or an agency of the federal or state government related to the student's major and supervised by a competent professional on the work-site. Credit is awarded by an MSCD faculty member in the appropriate academic department for learning related to academic goals enumerated in the learning contract of each student.

398-1-12 (Variable credit) Cooperative Education

Prerequisite: Junior standing and permission of instructor

An advanced work experience in a private company or governmental agency related to the student's major and supervised by a competent professional on the work site. Credit is awarded by an MSCD faculty member in the appropriate academic department for learning related to academic goals enumerated in the learning contract of each student.

For more information on the program and the placement opportunities in your academic major, contact the Cooperative Education and Internship Center office at 1045 9th Street Park. Phone: (303) 556-3290.

Health Careers Science Program

The Health Careers Science Program is designed to encourage women and ethnic minority groups who have traditionally been excluded from careers in science and technology. Students are provided with tutoring and other support to ensure their success in the science and technology areas. For additional information, please call 556-3215.

English as a Second Language

The English as a Second Language Program refers students with limited English proficiency to the appropriate curricula in order to allow them to integrate listening, reading, and composition used in their college work. The program provides tutoring, intensive academic advising, and monitoring of progress throughout the student's college career. For additional information, please call 556-2533.

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 2.00 or higher. This student is deemed to be in *academic good standing with the institution* (hereafter referred to in this section as *good standing*.) However, other academic standards may apply to specific programs and a student must satisfy those

Academic Information

different academic standards in order to be deemed in academic good standing with that program. Please 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 2.00 will be on *academic warning status with the institution* (hereafter referred to in this section as *warning status*) his or her next semester at MSCD. A student will be removed from this warning status and be in good standing if he or she achieves a cumulative GPA of at least 2.00 at the end of his or her semester on warning status. More restrictive standards may apply to given programs or schools. Please see information on the program of interest.

Academic Probation

A student who fails to achieve a cumulative GPA of at least 2.00 at the end of his or her semester on warning status will be put on *academic probation with the institution* (hereafter referred to in this section as *academic probation*) 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 2.00 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. Please see information on the program of interest.

A student is removed from academic probation and is in good standing the semester after he or she achieves a cumulative GPA of at least 2.00.

Any semester a student is on academic probation the student must make *progress toward good standing with the institution* by taking all of the following actions:

- achieving a semester GPA of 2.20 or higher
- registering and completing a minimum of three but no more than 12 semester hours (three to six semester hours for summer semester)
- taking required activities as negotiated with the Director of Academic Exceptions Program. These may include certain classes, repeated courses, tutoring, or other activities.

While on academic probation, a student may preregister the semester following the academic warning status semester, but is prohibited from preregistering any other semester. For these other academic probation status semesters, verification must occur that the semester GPA is at least 2.20 prior to a student being allowed to register.

Academic Suspension

A student on academic probation not making progress toward good standing with the institution will be prohibited from registering at the institution for one calendar year through *academic suspension from the institution*. Appeal of suspension for this reason will be submitted to the Director of Academic Exceptions Program. The Director of Academic Exceptions Program in turn will deliver the appeal materials to the Student Academic Review Committee, which will review the appeal and notify the student of its decision on the appeal. A student may appeal a suspension, at most, two times in his or her academic career at MSCD.

A student making progress towards good standing with the institution whose cumulative GPA remains below a 2.00 after three or more semesters on probation will have his or her academic progress reviewed each semester by the Student Academic Review Committee to 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 MSCD after the one calendar year suspension must reapply and will be readmitted on *academic probation with the institution*. For these students, all probation rules as outlined above will apply.

A STUDENT WHO IS SUSPENDED FOR A SECOND TIME WILL BE READMITTED ONLY IF HE OR SHE HAS SUCCESSFULLY COMPLETED AN ASSOCIATE DEGREE PROGRAM FROM A COMMUNITY COLLEGE AFTER SUSPENSION FROM MSCD OR CAN DEMONSTRATE TO THE STUDENT ACADEMIC REVIEW COMMITTEE THAT CHANCES FOR SUCCESSFUL COMPLETION OF AN EDUCATIONAL PROGRAM HAVE BEEN GREATLY IMPROVED.

Women's Services

The goal of the services component of the Institute for Women's Studies and Services is to assist women with a successful, positive college experience. A variety of assistance is available in the form of support groups, seminars, workshops, financial assistance information, and employment listings. There is also a small library which houses materials of interest to women and men who wish to learn about women's contributions and about issues that have a special effect on women's lives.

Women's Services works closely with other departments in the college and with the University of Colorado at Denver and Community College of Denver in order to provide immediate and appropriate referrals to on- and off-campus agencies. Women and men who need assistance or are concerned about women's issues should make an appointment with the coordinator of women's services.

Weekend Addition Program

Metropolitan State College of Denver offers a variety of courses on Friday evenings and Saturdays under the auspices of the Weekend Addition Program. The program has its own office which provides general assistance to students on specified weekends in the areas of advising, retrieval of college forms, scheduling, and assistance with student concerns which cannot be addressed during weekdays. The Weekend Office is located in the West Classroom Building, Room 147C.

Extended Education

The changing nature of society has always created new responsibilities and challenges for educators. During the past decade, those changes have come more rapidly and have been more comprehensive. Preparing people for successful and contributing roles in the society requires careful coordination with many areas of the community, as well as a keen awareness of the educational needs of the state and nation.

In order to fulfill its educational responsibility, the Extended Education Division has been designed by Metropolitan State College of Denver to meet the diverse higher education needs of the five-county metropolitan area. The offices of Extended Campus Program, Continuing Professional Development, and Adult Learning Services are the core of Extended Education. Through these offices, educational opportunities for students, faculty and the community have been developed. Partnerships have been established between MSCD and other institutions and businesses which are creating new models and standards for the development and delivery of innovative, high quality education.

Adult Learning Services

Adults entering or returning to college often have questions and problems that are different from those of younger students. Adults who would like assistance in re-entering the formal education system and in planning their educational goals may contact the Office of Adult Learning Services at 556-8342.

Credit for Prior Learning

In many academic departments at MSCD, students may apply for credit for college-level learning gained through experience. Information and assistance are available through the Office of Adult Learning Services at 556-8342.

Contract Major/Minor Degree Program

Students may design an individualized interdisciplinary major or minor program when their educational goals are not met by majors and/or minors listed in the *MSCD College Catalog*. Each contract major or minor is supervised by a faculty committee chosen by the student. For further information, contact the Office of Adult Learning Services at 556-8342.

Metro-Meritus

People 60 or older, who do not wish to earn credit, are invited to attend tuition-free classes of their choice at either Metropolitan State College of Denver or at an Extended Campus location, on a space available basis. Metro-Meritus is designed to give special encouragement and assistance to retired citizens to continue their personal educational growth in a stimulating and friendly campus setting. For information and to enroll, call the Office of Adult Learning Services at 556-8342.

Extended Campus Program

The Extended Campus Program provides fully accredited MSCD courses at convenient locations throughout the Denver metropolitan area. Courses are selected and scheduled to accommodate business professionals pursuing career advancement, degree-seeking students, and those interested in personal enrichment. Educational programs are held at two primary locations. Metro South is located near the Denver Tech Center, at 5660 Greenwood Plaza Blvd. Metro North is located at the Metro North Plaza, 120th Avenue and Grant Street, just east of I-25. Other locations are Metro on the Mall, located in downtown Denver, and various schools, churches, and community facilities. Extended Campus classes are open to regular MSCD students and other area residents. Tuition rates vary from the regular tuition schedule. Students may apply at Metro South, Metro North, Metro on the Mall, or with the Office of Admissions and Records. After being accepted, students may register by phone. Other Extended Campus Programs are telecourses and correspondence classes. Additional information concerning the Extended Campus Program is available at (303) 721-1313.

Metro on the Mall

A center designed to give downtowners greater access to MSCD, Metro on the Mall is located at 1554 California, Suite 200. Open 10:30 a.m. to 2:00 p.m., Monday through Friday, Metro on the Mall provides information on MSCD services such as academic programs, admissions and registration, adult re-entry assistance, cooperative education, financial aid, and special events. In addition, Metro on the Mall serves as a focus for downtown educational activity, offering classes, lecture series, seminars and workshops, open houses, and MSCD orientations, all at times convenient for downtowners.

World Trade Center

Metropolitan State College of Denver is a member of the World Trade Center, an international organization of business and educational institutions offering services to the international trade community.

All educational services at the World Trade Center are coordinated by Metropolitan State College of Denver. The primary mission of the World Trade Center Educational Services is to help businesses—locally and regionally—to acquire the knowledge,

attitudes, and skills that will prepare them to meet the challenge of operating in a global economy.

Interinstitutional Registration Denver Area Colleges

Students enrolled at Metropolitan State College of Denver may register for courses at Arapahoe Community College, Community College of Denver, Front Range Community College, and Red Rocks Community College. Courses taken at these institutions in no way alter existing Metropolitan State College of Denver degree requirements, but may apply toward degree requirements at MSCD 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 also not satisfy academic residence requirements at MSCD. In the event a conflict exists between the policies/procedures of MSCD and one of the colleges listed above, the most restrictive policy prevails. Students are well advised to confer with department chairs and/or coordinators of academic advising before registering interinstitutionally.

Information concerning current procedures for enrolling for courses at these other institutions is available from the Office of Admissions and Records.

Concurrent Enrollment

Concurrent enrollment differs from interinstitutional enrollment in that the student is simultaneously matriculated and enrolled at two different institutions. Students who find it necessary to be registered at Metropolitan State College of Denver and another college at the same time must obtain a letter of permission from the registering authority of each institution. Failure to receive advance permission may result in denial of transfer credit. Failure to do so will result in MSCD not recognizing credit from other institutions. Students concurrently enrolled are affected by the academic policies of both institutions. MSCD students enrolling concurrently at other institutions also should check with MSCD department chairs concerning the acceptance of credits.

Semester Hours Credit

Course credit is based upon units designed as semester hours. One semester hour or one base contact hour equals a minimum of 750 minutes; this translates to a minimum of 15 50-minute class hours per semester. Time required for class preparation is not a consideration in the calculation of course credit. Omnibus and laboratory courses 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 grade point averages of 3.25 or higher may take 19 or 20 semester hours and those students with grade point averages of 3.50 or higher may take 21 semester hours. Authorization for overloads without these grade point average minimums must be obtained from the student's major department chair and appropriate dean. Authorization for overloads in excess of 21 semester hours is given by the Board on Academic Standards Exceptions, following a successful formal appeal prior to the beginning of the semester. The student should begin the appeal by obtaining a petition from

Academic Information

an academic advising coordinator in the Academic Assessment and Support area. Please note: The college is reviewing course load requirements. Students should consult the *Class Schedule* for any changes pertaining to course loads.

Course Numbers, Titles, Descriptions, and Offerings

Before starting registration, students should study course descriptions for information on the level of instruction, credit, course sequence, content, and prerequisites.

The first digit in a three-digit course number designates the level of instruction. Only courses numbered 100 or above will be included in credits toward a degree. Courses with numbers up to and including 199 are primarily for freshmen, 200 through 299 primarily for sophomores, 300 through 399 primarily for juniors, and 400 through 499 primarily for seniors. Although, in general, while students should not take courses above the level of their class (based upon semester hours earned), 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, in addition to meeting the requirements for prerequisites, they obtain the permission of their advisor and of the faculty member teaching the course.

After each course number is a figure specifying the semester hours of credit. As an example, CHE 120-5 is a freshman five-credit course. After the course number is the course title which may be followed by a second set of numbers in parentheses indicating the division of time between lecture and laboratory. The first number represents the number of lecture hours each week and the second number indicates the number of laboratory, shop, or field hours. For example, CHE 120-5 General Chemistry I (4 + 2) represents the general chemistry course which has four hours of lecture and two hours of laboratory each week. Such a course 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 will be permitted to register for the course, this information is listed above the course description.

A list of all courses, instructors, class meeting times, and locations is published in the *Class Schedule*, which is printed well in advance of the beginning of each semester, and is available to all students.

Changes in Registration

Enrolled students may adjust schedules by dropping and/or adding classes during the first 15 percent of each semester. See the current semester *Class Schedule* for complete information concerning the tuition and fee refund schedule.

Students who reduce their course load after 15 percent of the term through the end of the fourth week of classes will receive an NC notation for each course they have dropped and a refund, if applicable. An NC/Withdrawal Form must be submitted by the deadline to the Office of Admissions and Records.

Students reducing their course load after the fourth week of classes through 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. An NC/Withdrawal Form must be submitted by the deadline to the Office of Admissions and Records. See the sections on grades, notations, course load, and class attendance in this section.

Proportional time frames are applied for modular courses, workshops, and summer terms.

Procedures for adding or dropping a modular course after the course has begun are described in the current *Class Schedule*.

Class Attendance

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 instructors of the reasons for the anticipated absence.

Whenever an instructor determines that a student's absences are interfering with academic progress, that instructor may submit a letter to the chair of the department informing that office of the situation.

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. Students may proceed rapidly, finishing a course well in advance of the end of a semester or module, with the advantage of being able to begin new studies or to concentrate on other courses. Students may proceed slowly without time limitations that might interfere with the mastery of each required skill.

This personalized system of learning relies heavily on learning aids and media so that tutors, student proctors, and faculty are free to devote additional time to individualized instruction and assistance.

Self-paced courses are identified in the *Class Schedule* by SP or self-paced. Information on the method of instruction and the nature of the program is available in each department. Self-paced courses are optional and are open to all students who qualify.

Students who do not complete the work of a self-paced course during a semester are given 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.

Preparatory Course Credit

No preparatory courses will apply toward a MSCD degree after spring 1993. Selected preparatory courses may apply toward a degree up through spring 1993 under certain circumstances. These circumstances include a student being eligible to follow all degree requirements according to an MSCD catalog effective during the period when the preparatory courses were offered at MSCD and having taken preparatory courses during this period.

For details, please see your advisor.

Nontraditional Credit Options in Lieu of Course Requirements

Successful completion of special examinations and/or completion of a prior learning portfolio which, assessed for credit, may be substituted for the completion of course requirements, may permit placement in advanced courses, or may be used as the basis for awarding credit. A student may earn up to 60 semester hours of credit toward degree requirements using nontraditional credit options. Approved credit of this sort will be posted to the student's record after the completion of eight semester hours of classroom (resident) credit. Nontraditional credit may not be used toward the last 12 semester hours of a degree program, does not substitute for residency requirements, and may not be used to challenge prerequisite courses for courses already completed. Students are advised that letter grades are not assigned for nontraditional credit, and some institutions may not accept transfer credits which do not include letter grades.

Departmental Course Examinations

In special cases a department may grant students credit toward graduation for college courses in which they request and pass special college examinations. Under this provision, a maximum of 30 semester hours of credit may be awarded by the college. A fee of \$10 per semester hour credit will be charged.

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

No application for credit by examination will be approved for a student who is not currently enrolled in good standing in a degree-seeking curriculum in the college. Credit by examination will not be approved for a student who is within 12 classroom semester hours of completing degree requirements. No credit by examination can be obtained for a course in which a student has been officially enrolled at Metropolitan State College of Denver or at another institution, whether or not the course has been completed and a grade awarded. Credit by examination cannot be obtained for college courses attended as a listener, visitor, or auditor.

When students have completed a course in the same discipline, higher in number than the course for which they are seeking examination credit, permission will be granted provided the two courses are unrelated and approval is granted by the appropriate department chair and dean. In a given discipline, no credit by examination can be obtained for a course lower in number in a sequence than the highest-numbered course already completed by that student. If a student is registered for, but has not completed a higher-numbered course in a sequence, the examination for the lower-numbered course must be completed within the first three weeks of the semester. Exceptions must be appealed to the Board of Academic Standards Exceptions following endorsement of the department chair or dean. Examinations cannot be taken to raise grades, to remove failures, or to remove NC, SP, or I notations. Credit by examination is not applicable toward academic residence requirements.

Examples of unrelated subject matter:

- ART 212, Human Anatomy for Artists
- ART 103, Basic Photography Methods
- ITS 241, Introduction to Photography
- ITS 101, Introduction to Wood

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

Credit by examination will be posted after a student has completed eight semester hours of credit at Metropolitan State College of Denver and after an evaluation of all possible transfer credits has been completed.

College-Level Examination Program (CLEP)

For the past 20 years, the College Board has offered a program of examinations designed to evaluate nonaccredited college-level

learning to award credit for successful demonstration of this knowledge. This program, known as the College-Level Examination Program, or CLEP, consists of two series of examinations: the general examinations and the subject examinations.

The general examination series includes five separate examinations covering the areas of English composition, humanities, natural sciences, math and social science-history. Based on the results of these examinations, the college may award up to a maximum of 30 semester hours of credit in the freshman general studies requirement areas. Thus, the successful student may test out of many of the traditional courses required during the freshman year. MSCD does not allow CLEP credit for ENG 102, which is the Freshman Composition: Analysis, Research, & Documentation course.

The subject examination series consists of more than 45 examinations which apply to specific college courses. MSCD allows credit for 18 of these examinations. Thirty semester hours of credit also may be awarded under this series, making a total of 60 semester hours of credit obtainable under a combination of the two series of examinations.

Credit obtained under CLEP at another institution will be re-evaluated according to MSCD CLEP policies.

The above policy applies to students following the General Studies Program requirements stated in the catalogs prior to and including the 1988-89 edition. Students who must fulfill General Studies Program requirements subsequent to 1989 must contact the MSCD C.A.T./CLEP coordinator for information. Any interested student should contact the coordinator at 556-3677 for complete information about this program before registering to take any of these exams.

Credit for Prior Learning

Students may apply for credit for college-level prior learning gained through experience by submitting a prior learning portfolio to the Office of Adult Learning Services which will forward it to the appropriate academic department for evaluation and assessment. Credits are awarded on the basis of careful evaluation of the prior learning portfolio which documents the applicant's prior learning experience. Students should check with departments for specific departmental guidelines in addition to college guidelines. The award of credit will be recommended by the departments and must receive final approval from the Prior Learning Assessment Committee composed of a faculty representative from each school of the college. Applicants for credit for prior learning will generally be required to take the Portfolio Development Workshop. A fee of \$30 per credit hour (resident) or \$120 (non-resident) will be assessed; \$40 (resident) of the total fee per course will be due before the portfolio is assessed for credit and is nonrefundable. The remainder of the fee becomes due when and if the credit requested is granted. Policies governing nontraditional credit options apply for credit to prior learning. Contact the Office of Adult Learning Services for assistance and further information at 556-8342.

Attainment Examinations

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

Advanced Placement Examinations

Students who have performed satisfactorily in special college-level courses while in high school, and who have passed appropriate advanced placement examinations conducted by the

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College Entrance Examination Board, may submit the results to the Office of Admissions and Records 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.

Credit for Military Training and Other Training Programs

Military training and other training programs which have been assessed for college credit by the American Council on Education will be evaluated by the Office of Admissions and Records for transfer credit at Metropolitan State College of Denver. For formal military training, copies of training certificates and a copy of the DD214 should be submitted to the Office of Admissions and Records. For other training, official ACE transcripts should be submitted. Credit limit is 30 semester hours.

Pass-Fail Option

The pass-fail option encourages the students to take courses outside of their major and minor fields and thereby broaden their educational experience. The pass notation has no effect on the grade point average; the failure grade is equivalent to the grade of "F."

Students having already completed at least one MSCD course with at least a 2.00 cumulative grade point average may choose to be evaluated for a certain course on a pass-fail basis rather than by letter grade. Courses taken on a pass-fail basis will apply to major, minor, or teacher certification requirements only with the approval of the appropriate department chair. Self-paced courses may not be taken under the pass-fail option. Maximum graduation credit for these ungraded courses is 18 semester hours, earned in no more than six courses, limited to one course per semester or module.

A student must declare interest in the pass-fail option no later than the last day to add classes (during the first 15 percent of the term) for a particular semester or module by contacting the Office of Admissions and Records. The instructor will assign and record the pass-fail grade on a final grade list which identifies students electing and eligible for pass-fail grading. Students who request the option and are later declared ineligible, will receive notification from the Office of Admissions and Records during the semester and will be assigned a regular letter grade in the course. Once approved, the request for the pass-fail option is irrevocable.

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

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.

Grades

Alphabetical grades and status symbols used at Metropolitan State College of Denver are as follows:

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

Notations

NC — No Credit

I — Incomplete

S — Satisfactory (Limited to student teaching and HPS/LES 489 internships)

P — Pass

X — Grade assignment pending. Student must see faculty for an explanation or assignment of grade. Courses taken through interinstitutional registration are normally assigned the X notation until grades are received and posted to the academic record. When posted, a new report is mailed to the student.

The No Credit (NC) notation is not a grade. It may indicate withdrawal from the course or course repetition. The NC notation may also be used in self-paced courses to indicate that the student and/or the faculty have decided to extend the student's exposure to the course in order to increase the student's proficiency. In order to earn credit, the student must re-register for and pay for the course in a subsequent term.

The Incomplete (I) notation may be assigned when a student was unable to take the final examination and/or did not complete all of the out-of-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 calendar year, the Incomplete (I) notation will change to an "F." Registering in a subsequent semester for a course in which an Incomplete (I) has been received will not remove the "I." The Incomplete (I) notation may not be awarded in a self-paced course.

The following minimal requirements shall be required throughout the college and shall be a part of all school, departmental, or individual faculty policies:

1. The NC notation shall be available to students in all instances through the fourth week of classes for fall and spring terms.
2. Requests by students for an NC notation in a given course shall not be granted after the tenth week of the fall and spring semesters. The Incomplete (I) notation may be used during this period provided the conditions specified above apply.
3. Proportional time frames are applied for modular courses, weekend courses, workshops, and summer terms.
4. A written policy statement describing the use of the NC notation shall be given to each student for each class in which she or he 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 that they jeopardize the student's success in a course. When absences become excessive, the student may receive a failing grade for the course.

Additional requirements for an NC notation may be set by each school, department, and/or faculty member.

Repeated Courses (Last Grade Stands)

A student may repeat any course taken at MSCD regardless of the original grade earned. By so doing, only the credit and the grade for the latest attempt at the course will remain on the student's MSCD academic record. The grade for the prior attempt(s) will be changed to the NC notation. The courses must carry the same title, course number, and semester hours. To effect such a change, the student must reregister and pay tuition for the course in question, complete the course with a letter grade, and complete the necessary form in the Office of Admissions and Records indicating that the course has been repeated. Otherwise, the grade change will be made administratively at the time of degree

evaluation or earlier, as identified. Credit duplication involving transfer, interinstitutional, or state college system courses may be treated differently from the above procedure. This policy cannot be utilized for the purpose of altering grades assigned prior to the receipt of a degree from MSCD.

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 grade point average is calculated by dividing the total by the number of semester hours attempted.

To be eligible for a degree, a candidate must, in addition to meeting other prescribed requirements, have a minimum number of quality points equal to twice the number of semester hours attempted. The notations NC, I, S, and P have no effect on the grade point average.

Transcripts of Records

A transcript is a certified copy of a student's permanent record and shows the academic status of the student at time of issuance. Copies are available at \$1 each. Transcripts will be released by the Office of Admissions and Records 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 name as recorded while attending MSCD, student identification number, last term of attendance, number of copies desired, and to whom and where transcripts are to be sent. Transcripts may be withheld because of indebtedness to the college or for other appropriate reasons. Transcripts from other institutions which are on file in the Office of Admissions and Records will be issued upon signed request by the student. A charge of \$5 per request is assessed for this service. Students from other institutions taking MSCD courses under the state college system or interinstitutional registration programs must request transcripts from their home institution.

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 third week of the semester following the completion of the course — the following fall semester in the case of the preceding spring semester. The Grade Appeal Guidelines may be obtained from the student's respective dean. It is the responsibility of the student to initiate a grade appeal within the time line, and to follow the procedures specified for grade appeals in the *MSCD Students Rights and Responsibilities Handbook*. The handbook may be obtained from the Office of Student Affairs. All decisions of the Grade Appeal Committee will be reviewed by an Associate Vice President for Academic Affairs.

Academic Honesty

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

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.

Honors and Awards

Metropolitan State College of Denver annually recognizes students who show outstanding leadership and service to the college and community, excellence in scholastic achievement,

and outstanding personal character and integrity. Recognition of students includes:

The President's Award (one senior); the Provost's Award for Academic Affairs (one senior) and for Student Affairs (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, Associated Students of Metropolitan State College of Denver, Charles W. Fisher Award, and the Colorado Engineering Council Award.

Information and applications for these awards are available in CN 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 Metropolitan State College of Denver Honor Lists. The **President's Honor List** carries the names of students who, at the time of computation, have achieved a cumulative grade point average of 3.85 or higher. The **Vice President's Honor List** carries the names of students who, at the time of computation, have achieved a cumulative grade point average 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.

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

1. *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 10 percent of graduates within each school with cumulative MSCD GPA of no less than 3.65.
2. To determine each honors category, grade point averages 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 summer, fall, and spring graduates.
3. To qualify for graduation honors recognition, a student must have completed a minimum of 50 semester hours of classroom credit at MSCD prior to the term of graduation.
4. Courses completed during the term of graduation and transfer credits are not considered when determining honors.

Additional information regarding graduation honors is available in the Office of Admissions and Records, CN 103-H.

Omnibus Courses

The omnibus courses listed below are designed to provide flexible learning opportunities. Experimental topics courses, seminars, and workshops deal with novel subjects and current problems. Independent study allows students to investigate problems of special interest. Supervised field study and internships, conducted cooperatively with business, industry, government and other agencies, provide practical on-the-job learning opportunities. Content of these courses should not duplicate that of regular courses listed in the catalog. Omnibus courses may be offered by all departments in the college.

A specific course plan for topic and group workshop courses, which covers content and semester hours, must be submitted by an instructor and approved by the chair of the department or discipline, and dean of the school before such a course can be listed in the schedule of classes. These same approvals are

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required for plans of study which individual students submit for registration in a workshop course (when individualized) or an independent study course.

No more than 30 semester hours earned in all of the omnibus courses will be counted toward meeting degree requirements.

The following course numbers are the same for omnibus courses in all disciplines; and, 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 and the approvals outlined above, other prerequisites appropriate to the study and departmental objectives may be added.

190 (Credit Variable) Topics

Prerequisite: Permission of instructor

An introductory level class to study selected topics especially appropriate for lower-division students.

390 (Credit Variable) Advanced Topics

Prerequisite: Permission of instructor

An in-depth inquiry into selected problems.

480 (Credit Variable) Workshop

Prerequisite: Approval of department

An advanced program of study, often of 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.

490 (Credit Variable) Seminar

Prerequisite: Permission of instructor

Presentations, discussions, reports, and critiques of various problems within the discipline in which the seminar is offered.

498 (Credit Variable, not to exceed six semester hours) Independent Study

Prerequisites: Senior standing and permission of the department chair

Independent investigation of problems within the student's major discipline. The course must be offered in that department/discipline and be supervised by a faculty member of that area.

Field Experience/Internship Courses

Field experience or experiential education courses are courses whose major instructional activities are conducted outside the regular classroom, but whose syllabi are formally approved by the institution and maintained as an integral part of a department's curriculum. These courses incorporate actual experience with information assimilation and adhere to policies set forth by the Colorado Commission on Higher Education. Certain degree and certification programs, such as teacher education or nursing, require experiential education courses as a part of the required coursework. Other departments offer experiential education courses, generally as a part of the student's major or minor, for credit applicable to graduation requirements.

Five terms identify field experience courses offered at Metropolitan State College of Denver: external laboratory, practicum, internship, student teaching, and independent study.

External Laboratory

A controlled environment or organized activity emphasizing experimentation in which guided observations and participation, under the guidance and supervision of the faculty member and the cooperating supervisor, enhance the integration of theory and practice (as in child development). The external laboratory is distinguished from the on-campus laboratory which is devoted to experimental study in any branch of the natural or applied sciences.

Practicum

A unit of work that involves apprenticeship in the practical application of previously studied theory under the observance and supervision of a skilled practitioner and faculty member (as a practicum in reading).

Internship

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 as well as the scrutiny and guidance of a faculty member (as in cooperative education).

Student Teaching

Faculty supervised learning experience in which the student applies knowledge gained in the Teacher Education Certification Program to a classroom setting (as in practice teaching).

Independent Study

A student-initiated creative or research project conducted under the direct guidance and supervision of a faculty member of an academic department or discipline (as a thesis or special upper-division project).

Guidelines for Field Experience/Internship Courses

1. Credit may vary from one to fifteen hours, depending upon the instructional activity.
2. 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.
3. 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.
4. An average of one hour a week, minimally, 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.
5. The supervising faculty member evaluates students' performance and, in consultation with the adjunct faculty member, assigns the grade for the course according to grading policies stated in the college catalog.
6. Omnibus courses (299, 397, 498, 499) 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.

299 (Credit Variable) Field Experience/Internship

Prerequisite: Sophomore standing and permission of instructor

A 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.

397 (Credit Variable) Practicum

Prerequisites: Sophomore standing and permission of instructor

A class involving a unit of work that involves apprenticeship in the practical application of previously studied theory under the observance and supervision of a skilled practitioner and faculty member (as a practicum in reading).

498 (Credit Variable, not to exceed six semester hours)
Independent Study

Prerequisites: Senior standing and permission of the department chair

Independent investigation of problems within the student's major discipline. The course must be offered in that department/discipline and be supervised by a faculty member of that area.

499 (Credit Variable) Advanced Field Experience/ Internship

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.

7. Cooperative Education courses (298, 398 - variable credit) 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 MSCD degree requirements.

Catalog Requirements for Bachelor's Degree

Students must use a single catalog to meet all their degree requirements including those in the general studies, major, and minor. All degree programs must adhere to overriding current policies at MSCD. All students should refer to the General Studies for Bachelor's Degree section in this catalog for important information.

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

For degree requirement purposes, students must normally select a Metropolitan State College of Denver Catalog in effect while they are enrolled at Metropolitan State College of Denver, provided that the catalog contains their complete program of study. A student interrupting enrollment for any three consecutive semesters or more may select only the current catalog in effect after returning to the institution.

A student transferring from a regionally accredited Colorado community college may complete degree requirements using a MSCD catalog in effect while enrolled at the community college, subject to the following conditions.

1. The catalog followed does not predate the current MSCD catalog by more than three years, and the designated catalog does not predate the 1988-1989 catalog year.
2. The catalog selected may have been in use at any time from the time the student was continually enrolled at a regionally accredited Colorado community college to the semester for which the student is enrolling. *

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

others stipulated for the degree for which a student is a candidate.

1. Complete a minimum of 120 semester hours with a cumulative grade point average of 2.00 or higher for all Metropolitan State College of Denver coursework.
2. Complete at least 40 semester hours in upper-division courses (300- and 400-level courses).
3. Complete all general studies requirements listed for the degree and major.
4. Complete one subject major consisting of not less than 30 semester hours. With certain exceptions (see the Degrees and Programs Available at Metropolitan State College of Denver section 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 areas of emphasis under one major does not constitute the completion of two majors. 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.
5. Complete all special requirements of a department and school.
6. Achieve a cumulative grade point average of 2.00 or higher in all MSCD courses which satisfy the requirements for the major and for all MSCD courses which satisfy requirements for a minor. Students should check with an advisor for special GPA program requirements.
7. Complete a graduation agreement.
8. Academic Residency (classroom credit) requirements:
 - a. Complete a minimum of 30 semester hours of classroom credit at Metropolitan State College of Denver, including the last 12 semester hours applicable to the degree.
 - b. Complete at least eight upper-division (300- and 400-level) semester hours of the major and three upper-division hours of the minor at Metropolitan State College of Denver (classroom credit).
 - c. Students should be aware that UCD pooled courses and courses taken interinstitutionally or at one of the other state colleges will not satisfy academic residence requirements at MSCD.
9. Credit Limitations:
 - a. Not more than 30 semester hours of omnibus-numbered courses may be applied toward graduation requirements.
 - b. Not more than 30 semester hours taken by extension and/or correspondence may be applied toward a bachelor's degree.
 - c. Not more than four semester hours in human performance and leisure activity courses will be counted toward a bachelor's degree for students who are not majoring in human performance, sport and leisure studies.
 - d. Not more than seven semester hours in music ensemble courses will be counted toward a bachelor's degree for students who are not majoring in music.

ASSESSMENT REQUIREMENTS

Individual programs at MSCD may require students' participation in assessment activities. Students may obtain information on programs assessment requirements from the department office.

Requirements for All Bachelor's Degrees

To earn a bachelor of arts or bachelor of science degree, a student must satisfy the following minimum requirements plus any

GRADUATION AGREEMENT

Metropolitan State College of Denver students who will complete degree requirements by the end of fall semester, 1992, should file a graduation agreement which must be received by the Office of Admissions and Records by the appropriate deadline stated in the *Class Schedule*.

Students should complete their graduation agreement in consultation with their advisor. When it is ready for signatures and a formal evaluation, students should submit the completed agreement to the minor department. The minor department will forward the signed agreement to the major department for signature; the major department will forward it to the dean of the school. The school will submit the agreement to the Office of Admissions and Records for final review. After the completion of each subsequent semester of academic work, the student will receive an up-to-date Academic Status Report.

Students may appeal to the Board of Academic Standards Exceptions to request a variance from college academic requirements. Their graduation agreement should be completed before the appeal. Valid reasons for variances must accompany all petitions, and the petitions must be signed by the appropriate dean and department chair.

All students planning degree completion after the summer semester, 1992, will be able to declare their degree plans by consulting with their academic advisor(s) and using the new Academic Progress Report segment of the Academic Monitor System.

Degree and Non-Degree Seeking Status

Degree Seeking

Students who plan to seek a degree at Metropolitan State College of Denver are categorized as degree seeking students. In order to have degree seeking status, students must submit all credentials; transfer students must have transcripts submitted from all colleges and universities attended. A graduation application and \$20 fee must be paid by intending degree candidates by the stipulated deadline of a student's declared semester of graduation.

Students who plan to seek a degree at Metropolitan State College of Denver may list their intended major on the application for admission. The intended major is temporary until students officially declare their major either with the academic department or the Academic Advising and Assessment Center. The official major may be declared when all credentials have been received.

Please Note: Until students are officially categorized as degree seeking, financial aid, veteran's benefits, and registration priority will be affected.

Non-Degree Seeking

Non-degree seeking students are those who do not intend to seek a degree at MSCD or who are unsure if they wish to pursue a degree at the time of application. Non-degree seeking students may change their status to degree seeking by completing a change of status form with the Office of Admissions and Records, by submitting all credentials, and by receiving a transfer evaluation if they are transfer students.

DECLARING A MAJOR

Intent-to-Major

First-time Metropolitan State College of Denver students may indicate an intent to major on the MSCD application form. **Stating an intent to major on the application form is not an official declaration of major.** Students with fewer than 60 hours who wish to major in the School of Business may so indicate on a School of Business Intent-to-Major form.

OFFICIAL DECLARATION OF MAJOR

All degree-seeking students who have completed 60 or more semester hours including hours transferred from other institutions must officially declare a major no later than the semester following the one in which they complete 60 or more hours.

To declare a major, students must complete an official Declaration/Change of Major form which is available from the major department or from the Academic Assessment and Support Center and obtain appropriate signature approval. Procedures for declaring a major depend upon the school and the number of semester hours completed as outlined below. Students who transfer to MSCD cannot officially declare a major until all credentials are received and evaluated.

Majors in the School of Letters, Arts and Sciences or the School of Professional Studies

Students, including transfers with MSCD officially evaluated transcripts, may officially declare a major in the Schools of Letters, Arts and Sciences or Professional Studies at any time. Students who have completed 29 or fewer semester hours must declare their major through the Academic Assessment and Support Center in consultation with an academic advisor. Students who have completed 30 or more hours must declare their major through the proposed major department.

Majors in the School of Business

Students having completed fewer than 60 semester hours, including transfers with MSCD officially evaluated transcripts, may declare an intent-to-major in the School of Business through the Academic Assessment and Support Center. Students who have completed 60 or more semester hours must officially declare their major through the academic department of the proposed major during the semester following the one in which they complete 60 or more hours.

Verification of Major: To verify the correctness of the officially declared major, students should refer to the information contained on their class confirmation notice.

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. A formal commencement ceremony is held at the conclusion of the spring and summer semesters. Students who officially graduated the previous fall semester are invited but are not required to participate in the spring commencement.

General Studies for Bachelor's Degrees

Students must use a single catalog to meet all degree requirements including those in the general studies, major, and minor. All degree programs must adhere to overriding current policies at MSCD.

Courses and specific prerequisites/corequisites approved for the current program are described in the Course Description section of this catalog. Students should consult an advisor in the Academic Assessment and Support Center when planning their programs.

Freshman Assessment: Reading, Writing, and Mathematics Placement Exams

First time college students are required to complete the reading, writing, and mathematics placement exams (see Assessment section). Exam results will serve as the basis for academic advising. To increase the student's opportunity for success at Metropolitan State College of Denver, students may be required to take courses below the level of first-year courses offered by Metropolitan State College of Denver. Students should be aware, however, that no credit is given for courses that are below the college level.

Philosophy

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 abilities to communicate with, as well as to learn from, experts in other fields. At Metropolitan State College of Denver, 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.

Through its General Studies Program, Metropolitan State College of Denver encourages the student to grow from mastery of skills through acquisition of knowledge in the major disciplines to synthesis of knowledge and skills. Therefore, the General Studies Program provides four levels of experience, each with separate goals:

Level I — Skills

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

Level II — Introduction to Content Areas

Level II courses provide the breadth characteristic of the educated person, encourage an open attitude toward different approaches to problems, and cultivate informed awareness of the principal achievements in history, arts and letters, society, and science.

Level III — Senior Experience

Level III courses allow students to synthesize learning through critical analysis and logical thinking and affords them the opportunity to work closely with an individual faculty member over a significant period of time. The Senior Experience demands independent and critical thought as well as the synthesis of ideas.

Multicultural Requirement

The intent and purpose of multicultural education at Metropolitan State College of Denver is for students, staff, faculty, and community to increase their appreciation and awareness of the American culture and the diverse cultures to which they contribute. The three credit hour requirement may be applied to any category in Level II or Level III of approved multicultural courses without increasing the 36 credit hour total General Studies requirements. Alternatively, these credits may be applied to the major, minor, or elective requirements of a degree. Please see an advisor for a current list of courses designated as multicultural. The multicultural requirement will be effective fall 1992.

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
Level III	
Senior Experience	3

Multicultural***	3
Total Hours Required	36

*Any of several 100 level courses, the content of which is to be determined by the Department of Mathematical Sciences and the General Studies Committee through preassessment.

**At least three of the 21 Level II semester hours must be upper division.

***These credits may be applied to any category in Level II or Level III of approved multicultural courses without increasing the 36 credit hour total General Studies requirements. Alternatively, these credits may instead be applied to the major, minor, or elective requirements of the degree.

Basic Rules

1. Only approved courses may be used to satisfy the general studies requirements. A current listing of these courses is published in the Course Description section of this catalog.
2. General studies courses need not be counted toward general studies requirements. They may be taken instead as electives or to satisfy requirements in the major or degree program. No Level II course, however, can be used to satisfy more than one graduation requirement.
3. Departments or programs whose curricula are guided by accrediting agencies may specify, by prefix and number, some general studies courses in addition to courses required for the major or a professional credential.

Level I Requirements: Composition, Mathematics, and Communication:

		Semester Hours
Composition: Required Courses		
ENG 101	Freshman Composition: The Essay	3
ENG 102	Freshman Composition: Research, Analysis and Documentation	3

Rules: Composition Requirement

1. Students must complete the ENG 101 requirement within their first 30 semester hours at Metropolitan State College of Denver and the ENG 102 requirement within their first 60 semester hours. These requirements may be postponed only if the postponement is approved in writing by the Department of English.
2. Students must demonstrate the adequacy of their writing skills in the placement exam before enrolling in ENG 101. Those students whose writing skills are inadequate will be counseled on steps to improve those skills. Students may be required to complete additional coursework.
3. Students shall have satisfied the Level I Composition requirements if they
 - a. satisfactorily complete ENG 101 and ENG 102, or
 - b. pass a CLEP or AP examination approved by the Department of English (ENG 101 only), or
 - c. transfer equivalent courses.

		Semester Hours
Mathematics: (Select one course)		
MTH 108	Mathematical Modes of Thought	3
MTH 111	College Algebra	4
MTH 121	Introduction to Statistics	4
MTH 131	Finite Mathematics for the Management and Social Sciences	4
MTH 161	Mathematical Concepts for Teachers in Presecondary Schools	4

*One approved course of at least three semester hours is required. To avoid difficulties, students should consult an advisor in the Academic Assessment and Support Center for guidance in selecting the appropriate mathematics course after taking the mathematics placement exam (see Rules: Mathematics Requirement).

Academic Information

Rules: Mathematics Requirement

1. 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 will be required to complete college arithmetic coursework before enrolling in a Level I mathematics course. Some courses have additional requirements.
2. Students must complete the Level I mathematics requirement within their first 30 semester hours at Metropolitan State College of Denver. This requirement may be postponed on an individual basis if the postponement is approved in writing by the Department of Mathematical Sciences.
3. Students shall have satisfied the Level I mathematics requirement if they
 - a. pass a mathematics course that has been approved for Level I mathematics credit (see courses listed above), or
 - b. pass a CLEP or AP exam approved by the Department of Mathematical Sciences, or
 - c. successfully complete a course for which a Level I mathematics course is a prerequisite, or
 - d. transfer an equivalent course.

Communication: (Select one course)*			Semester Hours
FRE	102	Elementary French II	5
GER	102	Elementary German II	5
HON	295	The Art of Critical Thinking	3
PHI	111	Language, Logic, and Persuasion	3
RDG	151	Cognitive Strategies for Analytical Reading	3
SPA	102	Elementary Spanish II	5
SPE	101	Fundamentals of Speech Communication	3
SPE	171	Interpersonal Communications: Individual as a Communicator	3

*One approved course of at least three semester hours is required. To avoid difficulties, students should consult an advisor in the Academic Assessment and Support Center for guidance in selecting the appropriate communication course.

See the course descriptions in this catalog for prerequisites to these courses.

Rules: Communication Requirement

1. Students must complete the required Level I communication course within their first 30 semester hours at Metropolitan State College of Denver.
2. Students shall have satisfied the Level I communication requirement if they—
 - a. pass an approved Level I communication course (listed above), or
 - b. pass a CLEP or AP test approved by a department offering a Level I communication course, or
 - c. transfer an equivalent course.

Level II Requirement

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 —

Level II Categories*:	Semester Hours
Historical	3
Arts and Letters	6
Social Science	6
Natural Science	6

*At least three of the 21 Level II semester hours must be upper-division.

The specific courses within each of these categories approved as satisfying general studies requirements are printed in this catalog.

Rules: Level II Requirement

1. Level II general studies courses have at least the following pre- or corequisites, and some courses have additional prerequisites (see course descriptions in this catalog)
 - a. Historical and Arts and Letters:
 - (1) Courses numbered 100 to 199:
Minimum performance standard scores on the reading and writing preassessment placement tests;
 - (2) Courses numbered 200 to 299:
Satisfaction of ENG 101 and the Level I General Studies communication course requirement
 - (3) Courses numbered 300 and above: students shall have satisfied all Level I General Studies course requirements
 - b. Natural and Social Science:
 - (1) Courses numbered 100 to 199:
Minimum performance standard scores on the reading, writing and mathematics preassessment placement tests.
 - (2) Courses numbered 200 to 299:
Satisfaction of the Level I Mathematics course requirement and either ENG 101 or the Level I communication course requirement
 - (3) Courses numbered 300 and above: satisfaction of all Level I General Studies course requirements
2. Students may not use courses having the same prefix as their major discipline to satisfy the general studies Level II requirement.
3. Students may apply to the Level II requirement not more than eight semester hours of credit bearing the same course prefix.
4. At least three of the 21 semester hours of Level II courses must be upper division (numbered 300 and above).

Level III Requirement

The Level III Senior Experience courses are numbered 400 and above and are at least three semester hours. Students must complete a Senior Experience at the end of the undergraduate program. Level III General Studies courses must have the following minimal prerequisites: satisfaction of all Level I and Level II General Studies requirements and senior standing.*

*The specific courses within each of these categories approved as satisfying General Studies requirements are printed in this catalog.

Requirements for a Second Degree

For an additional bachelor's degree, the student will comply with the following:

1. The first bachelor's degree must be recognized by Metropolitan State College of Denver.
2. Student must complete all requirements for a new major with a minimum of eight MSCD classroom upper-division semester hours in the major department.
3. Student must complete a minor, if required by the major department for the contemplated degree.
4. The student must spend at least two additional semesters in residence.

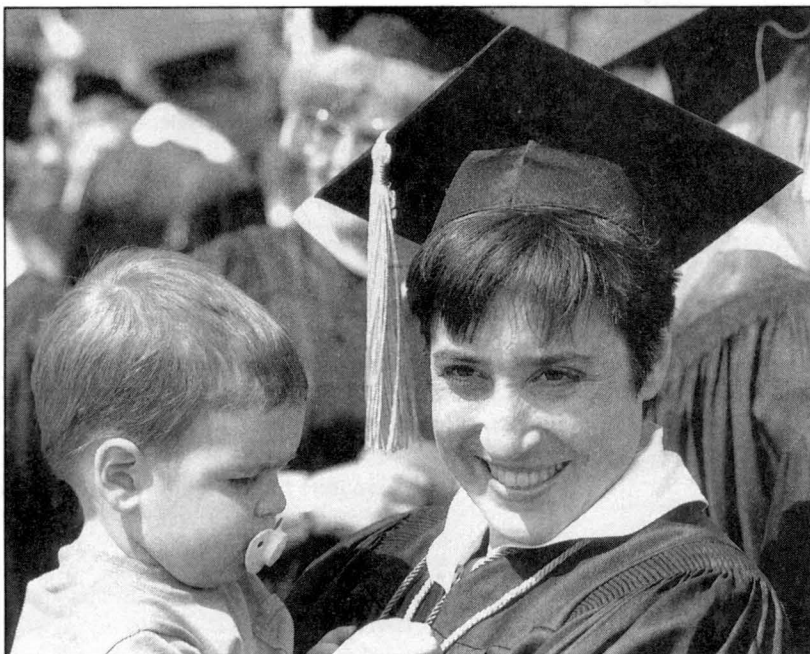
5. A minimum of 30 semester hours of classroom credit at MSCD is required in addition to the credits completed by the student for the earlier degree.
6. General studies will be considered complete unless deficiencies exist according to the major department.
7. Credit limitations for a bachelor's degree will continue to exist for the second degree.
8. A graduation agreement must be completed as outlined in this catalog.

Family Educational Rights and Privacy Act

Metropolitan State College of Denver hereby gives notice that it has designated the following categories of personally identifiable information as directory information under section 438(a)(5)(B) of the Family Educational Rights and Privacy Act of 1974 (FERPA). Subject to the Colorado Public Records Act, directory information concerning students at the college may be released **without the prior consent of the student** as permitted by FERPA unless within ten (10) days after registration a student has notified Metropolitan State College of Denver, Office of Admissions and Records, located in the Central Classroom Building, Room 103, that such information should not be released without his or her consent. Directory information at Metropolitan State College of Denver is as follows:

- name
- address
- dates of attendance
- degrees received

Requests for disclosure of directory information must be submitted in writing to the MSCD Office of Admissions and Records, Central Classroom Building, Room 103. In the case of emergencies, directory information may be released, without written requests, at the college's discretion. Prospective employers or their agents may request information concerning verification of student degrees received or dates of attendance directly from the MSCD Office of Admission and Records without submitting a written request to the college.



Degrees and Programs Available at Metropolitan State College of Denver

Metropolitan State College of Denver is organized into three schools. These are listed below with the majors and minors offered by each. The curriculum requirements for each of the programs are described under special sections of this catalog prepared by each school. Programs marked with an asterisk (*) do not require completion of a minor.

	Bachelors Degree Major	Minor
School of Business		
Accounting*	x	
Computer Information Systems and Management Science*	x	
Economics* **	x	x
Finance*	x	
Management*	x	
Marketing*	x	
General Business		x

**The Department of Economics offers a bachelor of arts degree, rather than a bachelor of science degree.

School of Professional Studies

Division of Education

Bilingual/Bicultural Education	x
Early Childhood Education	x
Exceptional Child	x
Parent Education	x
Reading	x
Teacher Certification:	
Early Childhood, Elementary, and Twelve Secondary Fields	

Division of Technology

Airframe and Power Plant Mechanics	x
Aviation Management	x
Civil Engineering Technology	x
Drafting Engineering Technology	x
Electronics Engineering Technology	x
Industrial Design*	x
Industrial and Technical Studies*	x
Mechanical Engineering Technology	x
Private Pilot	x
Professional Pilot	x
Surveying and Mapping	x
Technical Communications	x
Technical and Industrial Administration*	x

Division of Public Service Professions

Criminal Justice and Criminology	x
Fire Services Administration	x
Health and Safety	x
Health Care Management (upper-division)	x
Hospitality, Meeting and Travel Administration*	x
Hotel Administration	x
Human Performance and Sport	x
Human Services*	x
Leisure Studies	x
Meeting Administration	x
Nursing (upper-division for R.N.'s)	x
Restaurant Administration	x
Travel Administration	x

Institute for Gerontology

Gerontological Services	x
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School of Letters, Arts and Sciences

Division of Humanities

Art**	x
English	x
French	x
German	x
Industrial Design*	x
Journalism	x
Language and Linguistics	x
Modern Foreign Languages	x
Music	x
Music Education*	x
Music Performance*	x
Philosophy	x
Practical Writing	x
Public Relations	x
Spanish	x
Speech Communications	x
Speech Pathology-Audiology	x

**Art offers a bachelor of the fine arts degree.

Division of Science and Mathematics

Biology	x
Chemistry	x
Computer Science	x
Criminalistics	x
Geography	x
Geology	x
Land Use	x
Mathematics	x
Meteorology	x
Physics	x
Theoretical Physics	x

Division of Social Sciences

Anthropology	x
Behavioral Science	x
History	x
Interdisciplinary Legal Studies	x
Political Science	x
Psychology	x
Public Administration	x
Social Welfare*	x
Sociology	x
Urban Studies* **	x

**Urban Studies offers a bachelor of arts degree and a bachelor of science degree.

Institute for Intercultural Studies and Services

African American Studies	x
Chicano Studies	x

Institute for Women's Studies and Services

Women's Studies	x
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Communications Multi-Major

The communications multi-major offers seven areas of emphasis for students with varying educational and career needs. Each student's program is planned with an advisor in the selected area of emphasis. Students may obtain information concerning the major from the department sponsoring the particular area of emphasis in which they are interested.

Area of Emphasis

- Communications: Visual — Sponsored by Art
 Communications: Technical Writing and Editing — Sponsored by Technical Communications
 Communications: Organizational — Sponsored by Technical Communications
 Communications: Technical Media — Sponsored by Technical Communications
 Communications: Broadcasting — Sponsored by Speech
 Communications: Theater Administration — Sponsored by Speech
 Communications: Sports — Sponsored by Human Performance, Sport and Leisure Studies

All communications multi-major areas of emphases comprise 42 semester hours of study, including six hours of required core courses as outlined below, courses in the area of emphasis, and a choice of free electives.

Communications Multi-Major for Bachelor of Arts

Required Core Courses for All Areas of Emphases			Semester Hours
COM	272	Introduction to Communications Concepts and Systems	3
SPE	374	Psychology of Communication	3
or			
SPE	410	Techniques of Persuasion	3
Option Requirements			36
Total			42

Communications Free Electives List

Other courses approved by the advisor in the selected communications area of emphasis are acceptable as free electives.

ANT	131	Introduction to Cultural Anthropology	3
ANT	233	Cross-Cultural Communication	3
ART	101	Basic Drawing Methods	3
ART	102	Basic Design and Crafts Methods	3
ART	202	Survey of Contemporary Art: 1960-Present Day	3
CEN	120	Technical Drawing I	4
CEN	121	Technical Drawing II	4
ENG	251	Intermediate Composition	3
ENG	303	Semantics	3
JRN	181	Introduction to Journalism and Mass Media	3
JRN	182	Beginning Reporting and News Writing	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	286	Intermediate Reporting and News Writing	3
JRN	381	Feature Article Writing for Newspapers	3
PHI	144	Logic	3
PSC	322	Public Policy	3
PSC	352	American Political Thought	3
PSY	241	Social Psychology	3
PSY	342	Issues in Social-Personality Psychology	3
SPE	301	Advanced Public Speaking	3
SPE	310	Business and Professional Speaking	3
SPE	322	Movement for the Stage	2
SPE	328	Stage Directing	3
SPE	330	Voice Science: Phonetics and Voice and Diction	3
SPE	347	Evolution of Cinematics as Art	3
SPE	412	Freedom of Speech	3
SPE	420	Reader's Theatre	3
SPE	426	Theatre Practicum I	1
SPE	427	Theatre Practicum II	2
SPE	448	Seminar: Practicum in Broadcasting	3
SPE	449	Effects of Radio-Television on Contemporary Life	3

Communications Multi-Major Summary

Areas of Emphasis	Sem. Hrs. In Core Courses	Sem. Hrs. In Area of Emphasis	Sem. Hrs. in Comm. Electives	Total Sem. Hrs. In Major
Communications: Visual	6	27	9	42
Communications: Technical Writing & Editing	6	24	12	42
Communications: Organizational	6	24	12	42
Communications: Technical Media	6	24	12	42
Communications: Broadcasting	6	21	15	42
Communications: Theatre Administration	6	18	18	42
Communications: Sports	6	27	9	42

Holistic Health and Wellness Education Multi-Minor

The holistic health and wellness education multi-minor offers an area of concentration for students who recognize the increased emphasis on wellness in several professional fields and/or for health conscious individuals who wish to establish a self-enhancement program. The multi-minor is designed to complement a major chosen by a student which is relevant to the student's career goals. The student arranges for the minor through one of the following departments: human performance, sport and leisure studies, human services, nursing and health care management, philosophy, psychology, sociology, or teacher education.

The multi-minor comprises 24 hours of study as outlined below:

Required Courses			Semester Hours
HES	105	Dynamics of Health	3
HES	204	Introduction to Nutrition	3
HSW	375	Holistic Health and High Level Wellness	4
HSL	150	Skills and Methods: Teaching Physical Fitness	2
PHI	322	Personal Knowledge and Professional Growth	3
PSY	275	Introduction to Holistic Health	3
PSY	303	Research in Health and Wellness Electives*	3
Total			24

*Practical experience is an integral part of this minor and contract major. Students are urged to enhance their education through field work. This can be achieved through practicums, internships and cooperative education offerings in one of the above listed departments or by using these elective hours.

Contract Major/Minor Program

Even with the wide diversity of the majors and minors presently offered at Metropolitan State College of Denver, the need arises for an academic program which is individual in nature, meets the specific needs of the students and is responsive to emerging educational requirements. The contract major/minor is an organized degree program written by the student in consultation with a contract major/minor faculty advising committee. Working with faculty from selected disciplines enables students to complete a specific, individual, educational objective which cannot be satisfied by any existing catalog major and/or minor programs. The degree sought may be either a bachelor of arts or bachelor of science. For further information, contact the Office of Adult Learning Services at 556-8342.

School of Business

The philosophy of the School of Business is to devote its resources to high quality undergraduate programs. The curriculum of this school is designed to provide the student with a background of general education, familiarity with basic principles of business, and specialized knowledge in a selected field of business. The school offers the bachelor of science degree, while the Department of Economics offers a bachelor of arts degree.

Undergraduate programs within the School of Business are designed:

1. To offer the student the opportunity to receive the baccalaureate degree. This degree program consists of a broad foundation in general education, a thorough grounding in basic business courses, and specific competence in one or more significant functional areas of business.
2. To offer a diverse undergraduate program to meet the interests of those residents of the metropolitan area, and others, who desire to study business-oriented subjects without undertaking a degree program, and to meet the needs of the Denver business and professional community for continuing education programs.
3. To strengthen students' powers of imaginative and innovative thinking, self-reliance, creative independent analysis, and sensitivity to social and ethical values.
4. To instill in students a desire for learning that will continue after they have graduated and taken their places in the community.
5. To convey to each student the spirit of pioneering, risk, and progress which is essential to the continued development of the U.S. economic system.

Admissions Requirements

Admission into the School of Business will be granted to those students who have achieved an overall GPA of 2.25; this 2.25 GPA must be maintained while a student is enrolled in a major area of study within the School of Business. If a student's overall GPA falls below a 2.25, the student will be placed on academic probation and have one semester to raise their overall GPA to 2.25. Status will be changed to undeclared major if the student's GPA is not raised to 2.25 or better.

Acceptance into the School of Business is contingent upon the completion of all Level I and Level II General Studies courses (except the capstone course designated at Level III) plus all 200 level courses in the School of Business and necessary prerequisites. The student must have 60 credit hours.

Upon completion of the above-mentioned requirements, a student may apply, and be accepted, for admission into the School of Business. Specific required courses are listed below.

General Studies

Level I

Composition

ENG 101	Freshman Composition: The Essay	3
ENG 102	Freshman Composition: Analysis, Research, and Documentation	3

Mathematics

MTH 131	Finite Mathematics for the Management and Social Sciences	4
MTH 132	Calculus for the Management and Social Sciences	3

Communication

SPE xxx	Any Level I General Studies Speech course	3
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Total 16

Level II

History (American History Course) 3

Arts and Letters

PHI 336	Business Ethics	3
Elective		3

Social Science

ECO 201	Principles of Economics—Macro	3
ECO 202	Principles of Economics—Micro	3
PSY 101	Introductory Psychology	3
or		
SOC 101	Introduction to Sociology	3
PSC 101	American National Government	3
or		
PSC 102	Political Systems and Ideas	3

Natural Science

Electives		6
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Total 27

Business Courses

ACC 201	Principles of Accounting I	3
ACC 202	Principles of Accounting II	3
CMS 201	Principles of Information Systems	3
MGT 221	Legal Environment of Business	3

Total 12

Additional hours of General Studies or Business 5

Total Required 60

Bachelor of Arts Economics

Economics is a scientific study which deals with the allocation of scarce or limited resources. The study of economics offers an opportunity for the student to acquire a general knowledge of the operation of economic systems and institutions. This training is extremely valuable to the student regardless of her or his specific career objective. The bachelor of arts program has been designed to provide the student with a fundamental knowledge of domestic as well as foreign economies, and the quantitative tools necessary for independent analytical research and thought. Specialized courses are provided to develop the student's ability in the use of the tools of economic theory and analysis. Such training is essential for graduates who wish to qualify for positions as professional economists. Employment opportunities in economics are available in national and international business, federal, state, and local government, and in various nonprofit organizations.

Required Courses

Required Courses		Hours
MTH	121 Introduction to Statistics	4
ECO	301 Intermediate Microeconomic Theory	3
ECO	302 Intermediate Macroeconomic Theory	3
ECO	315 Econometrics	3
ECO	460 History of Economic Thought	3

Total 16

Approved Electives

15 hours of upper-division economics electives selected in consultation with and approved by the Department of Economics 15

Total 31

Minor

18 hours must be completed to fulfill the minor requirement

Total 18

General Studies (minimum) 36

Free Electives 35

Program total 120

Business Emphasis in Economics

This emphasis prepares the student for entry into the growing professions of economics and business. It provides training that

will enable the student to enter the profession and provide assistance to government and business in solving problems and formulating policies.

General Studies (See General Studies Requirements for Bachelor of Science Degree in School of Business) (minimum) 46

Business Core (See Business Core for Bachelor of Science Degree in School of Business) 30

Required Courses			Semester Hours
ECO 301	Intermediate Microeconomic Theory	3	
ECO 302	Intermediate Macroeconomic Theory	3	
ECO 315	Econometrics	3	
ECO 460	History of Economic Thought	3	
Total			12

Approved Electives

12 hours of upper-division economics electives selected in consultation with and approved by the Department of Economics. 12
Total 24

Electives within the School of Business (Upper Division) 9
Electives outside the School of Business 11
Program total 120

Bachelor of Science

Accounting

Computer Information Systems and Management Science

Finance

Management

Marketing

The School of Business offers majors in accounting, computer information systems and management science, finance, management, and marketing. The accounting major is designed to prepare students for a career in public, industrial, tax, systems, or governmental accounting. The computer information systems and management science major is designed to prepare students for a career in the rapidly expanding fields of business, data processing, systems design, or management science. The finance major is designed to prepare students for a career in corporate financial analysis, insurance, personal financial management, international financial management, accounting, real estate, investments, or banking. The major in management provides areas of emphasis in insurance, personnel and human resource management, production, real estate, or managerial entrepreneurship. The marketing major prepares students for entry positions in the dynamic areas of distribution/retailing, promotion/advertising, sales, marketing research, marketing for nonprofit organizations, or marketing management.

In order to be awarded a degree, the student must conform to the college's general specifications for the bachelor's degree listed under Requirements for all Degrees. A summary of the course program which she or he must complete within the School of Business is as follows:

General Studies	(minimum) 46
Business Core	30
Major in School of Business	24
Electives Within the School of Business (Upper Division)	9
Electives Outside the School of Business	11
Total	120

General Studies

Students seeking a bachelor's degree in accounting, computer information systems and management science, economics (business emphasis), finance, management, or marketing must complete the general studies requirements for Metropolitan State College of Denver and the School of Business. The general studies requirements are listed below.

General Studies

Level I

Composition		
ENG 101	Freshman Composition: The Essay	3
ENG 102	Freshman Composition: Analysis, Research, and Documentation	3
Mathematics		
MTH 131	Finite Mathematics for the Management and Social Sciences	4
MTH 132	Calculus for the Management and Social Sciences	3
Communication		
SPE 101	Fundamentals of Speech Communication	3
Total		
16		

Level II

History (American History Course)			3
Arts and Letters			
Approved Level II LAS general studies course			3
Elective 3			
Social Science			
ECO 201	Principles of Economics—Macro	3	
ECO 202	Principles of Economics—Micro	3	
PSY 101	Introductory Psychology	3	
or			
SOC 101	Introduction to Sociology	3	
PSC 101	American National Government	3	
or			
PSC 102	Political Systems and Ideas	3	
Natural Science			
Electives			6
Total			27

Level III

MGT 495	Strategic Management	3
Total		
46		

Please Note: The School of Business requires 46 hours in general studies. In addition, we require 11 credit hours outside of the School of Business. Those 11 hours could be from coursework in the Arts and Sciences or Professional Studies.

Business Core

In addition to the general studies requirements, students majoring in any area of business administration must complete the following business courses:

Required Courses			Semester Hours
ACC 201	Principles of Accounting I	3	
ACC 202	Principles of Accounting II	3	
MKT 305	Business Research and Report Writing	3	
CMS 201	Principles of Information Systems	3	
CMS 330	Principles of Quantitative Management Systems	3	
CMS 332	Quantitative Decision Making	3	
FIN 330	Managerial Finance I	3	
MGT 221	Legal Environment of Business I	3	
MGT 300	Organizational Management	3	
MGT 495	Business Policies	3	
MKT 300	Principles of Marketing	3	
Total			33

Accounting

Courses in MSCD's Department of Accounting prepare students for a career in public, industrial, tax systems, or governmental accounting. In addition, a wide variety of internships are available through MSCD's Cooperative Education Office.

Accounting students have six hours of accounting electives (to be selected from ACC 310, 320, 341, 409, 410, 430, 445, 451, 452, and 460) and nine hours of upper division business electives available. A careful selection of these electives should be made in accordance with career objectives. Students are encouraged to consult with accounting faculty on the selection of electives.

Accounting Major for Bachelor of Science

Required Courses		Semester Hours
ACC 309	Income Tax I	3
ACC 330	Introduction to Accounting Systems	3
ACC 340	Cost Accounting	3
ACC 351	Intermediate Accounting I	3
ACC 352	Intermediate Accounting II	3
ACC 420	Auditing	3
Plus 6 hours from the following courses:		
ACC 310	Income Tax II	3
ACC 320	Governmental Accounting	3
ACC 341	Advanced Cost Accounting	3
ACC 409	Tax Procedure & Research	3
ACC 451	Advanced Accounting I	3
ACC 452	Advanced Accounting II	3
Total		24

Computer Information Systems and Management Science

This major offers a rich variety of courses in the rapidly expanding, stimulating area of information systems in the business world. Students can look forward to challenging careers in computer information systems or using their computer information systems education within any of the other functional areas of business. Students majoring in CMS are encouraged to select particular courses that best meet their needs in specific areas such as Systems Development, Programmer Analyst, Office Systems, Management Information Systems, or Management Science. Advising for these areas is available from the department and individual faculty members. All CMS majors must adhere to the following:

- (1) Completion of CMS 211, CMS 305, CMS 306,
- (2) Completion of a 400 level CMS course,
- (3) A maximum of 9 hours of language-type courses
- (4) Completion of 12 hours of advisor approved courses in addition to (1) and (2) above.

Major for Bachelor of Science

Required Courses		Semester Hours
CMS 211	COBOL	3
CMS 305	Fundamentals of Systems Analysis and Design	3
CMS 306	File Design and Data Base Management	3
Total		9

Electives

A 400 level CMS course	3
Approved CMS electives	12
Total for CMS major	24

Finance

The finance major is designed to prepare the student for careers which concentrate on the dynamic process of managing the funds of individuals, businesses, and governments. Career opportunities are available in the field of managerial finance and the financial services industry. The field of managerial finance is concerned with activities associated with managing the financial affairs of businesses and governments. These activities include opportunities in budgeting, financial forecasting, cash management, credit administration, investment analysis, and funds management. Career paths in the financial services industry include positions in banks, savings and loans, other financial institutions, opportunities in brokerage firms, insurance companies, and the real estate field. The most dramatic increase in career opportunities is personal financial planning where professionals are needed to provide advice to consumers on the

management of their personal financial affairs. MSCD's Department of Finance is one of the few departments in the country which has been approved to offer the academic courses required of individuals who desire to take the national exams leading to the Certified Financial Planner designation.

All finance majors must take FIN 301, 360, 385, and 495. To complete the major, a minimum of 12 additional semester hours of upper-division finance or closely related courses is required, with at least six hours at the 400 level, selected in consultation with and approved by the student's Finance Department graduation agreement advisor or by the Finance Department's chair.

Major for Bachelor of Science

Required Courses		Semester Hours
FIN 301	Financial Markets and Institutions	3
FIN 360	Investments	3
FIN 385	Intermediate Finance	3
FIN 495	Financial Strategies and Policies	3
Total		12

Approved Electives

12 hours of upper-division finance electives selected in consultation and approved by the Finance Department

Total Hours for Major 24

Management

The objective of the Department of Management curriculum is to prepare graduates for challenging careers in business and other types of institutions. The program is designed to develop the student's ability to think objectively, to analyze organizational problems, and make sound decisions.

Management Major for Bachelor of Science

Required Courses		Semester Hours
Management		
MGT 322	Legal Environment of Business II	3
MGT 353	Human Resources Management	3
MGT 355	Manufacturing and Service Management	3
MGT 400	Management Decision Analysis	3
MGT 453	Organizational Behavior	3
MGT 464	Employee Training and Development	3
Approved management electives		6
Total		24

Human Resources Management

MGT 322	Legal Environment of Business II	3
MGT 353	Human Resources Management	3
MGT 400	Management Decision Analysis	3
MGT 461	Labor/Employee Relations	3
MGT 462	Appraisal and Compensation	3
MGT 464	Employee Training and Development	3
Approved management electives		6
Total		24

Manufacturing and Service Management

MGT 355	Management and Service Management	3
MGT 400	Management Decision Analysis	3
MGT 405	Purchasing and Materials Management	3
MGT 455	Project Management	3
MGT 464	Employee Training and Development	3
MGT 465	Managing Productivity	3
Approved management electives		6
Total		24

Entrepreneurship

MGT 302	Fundamentals of Entrepreneurship	3
MGT 322	Legal Environment of Business II	3

MGT	402	Entrepreneurial Creativity	3
MGT	442	Entrepreneurial Business Planning	3
MKT	310	Retailing*	3
FIN	385	Managerial Finance II	3
		Approved management electives	6
		Total	24

*Note: Marketing Research, Industrial Marketing, or International Marketing may be substituted for Retail Marketing with the permission of the chair of the Department of Management.

Marketing

MSCD's Department of Marketing prepares students for entry-level positions in such dynamic areas as sales management, distribution, advertising, marketing research, retailing, and marketing management.

In addition to the department's well-rounded selection of courses, the curriculum also 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. Student are also exposed to a variety of marketing speakers from the business community. Part-time positions are often available for marketing students through the college's Cooperative Education Office.

Many students in the department are already involved in some aspect of marketing and, to accommodate their busy schedule, the department holds a variety of day and evening classes, as well as classes at neighborhood locations through the Extended Campus Credit Program.

Faculty in the Marketing Department have an excellent combination of academic background and practical experience. All members stay current in their fields with activities both on and off campus.

Marketing Major for Bachelor of Science

Required Courses			Semester Hours
MKT	301	Marketing Research	3
MKT	331	Consumer Behavior	3
MKT	456	Marketing Management	3
		Fifteen hours of marketing electives*	15
		Total hours for major	24

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

Minor in the School of Business

The School of Business offers the general business minor for non-business majors. Students minoring in general business must take ECO 201 and ECO 202 as part of their General Studies requirements. In addition to the required 24 credit hours below, students may select six 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 other business courses beyond the above 30 hours, the student must declare a major with the School of Business.

General Business Minor

Required Courses			Semester Hours
ACC	201	Principles of Accounting I	3
ACC	202	Principles of Accounting II	3
ECO	201	Principles of Economics-Macro*	3
ECO	202	Principles of Economics-Micro*	3

MGT	221	Legal Environment of Business I	3
CMS	201	Principles of Information Systems	3
CMS	330	Principles of Quantitative Management Systems	3
MKT	300	Principles of Marketing	3
MGT	300	Organizational Management	3
FIN	330	Managerial Finance I	3

*Prerequisite — Credit applied in General Studies.

Economics Minor

The economics minor is designed for nonbusiness majors and provides them 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

ECO	201	Principles of Economics-Macro	3
ECO	202	Principles of Economics-Micro	3

Electives

A minimum of 12 additional semester hours of upper-division economics courses, selected in consultation with and approved by the Department of Economics.

African American Leadership Institute

The African American Leadership Institute operates on the belief that all members of our society should have an equal opportunity to pursue their goals and aspirations. The institute provides a unique approach to the particular problems and concerns of African Americans in the Denver metropolitan area with three underlying tenets that form its philosophy.

1. To identify, motivate, and train future community leaders.
2. To acquaint these individuals with problems and needs of the community while investigating alternative approaches and solutions.
3. To create an opportunity for these individuals to join together and exchange ideas with current leaders for the purpose of networking for national, state, and local community improvements.

Seminars cover topics which reflect current community issues, including regional business and economics, local and state government, education, health care, human services, the arts, and cultural affairs.

Institute for Entrepreneurship and Creativity

The Institute for Entrepreneurship and Creativity has introduced entrepreneurial education into the region's academic arena through weekend courses for professionals and entrepreneurial seminars and forums. The purpose of the institute is to discover, foster, and mold the visions of today's aspiring entrepreneurs. It provides degree and non-degree students from the community with opportunities to learn about entrepreneurship, to understand the entrepreneurial process, to practice skills that lead to successful entrepreneurship, and to enhance creativity and innovation.

School of Letters, Arts and Sciences

The programs in Letters, Arts and Sciences provide high quality liberal arts education designed to meet the educational needs of the urban student. Whether in humanities, social sciences, or mathematics and science, the programs directly address personal and professional goals of students. The faculty exert leadership in their disciplines, helping to shape new directions, as well as responding to new ideas and developments.

The school offers the bulk of the General Studies curriculum required for all degrees. Students wishing to earn certification as teachers choose from Letters, Arts and Sciences majors.

The Colorado Alliance for Science, a statewide effort to encourage science and mathematics teaching and learning, is housed in the school. The member colleges and universities work with public schools throughout the state, offering assistance and support to teachers and students.

The Health Careers Science Program encourages women, minorities, and other under-represented groups to follow careers in health and health-related areas.

The school also offers internships and cooperative education opportunities in a number of departments and programs. Depending on their major, students may be assigned to the legislature, state and local agencies, the media, business, or industry.

Division of Humanities

The humanities curricula are offered in the departments of Art, English, Modern Languages, Music, Philosophy, and Speech Communication. In these programs, students develop an understanding and appreciation of the worlds of art, music, and ideas. The programs offered by the institutes for Intercultural and Women's Studies broaden awareness of social issues related to cultural diversity, ethnicity, and gender. Students may complete the bachelor's degree and, in conjunction with programs in education, earn teacher certification at the secondary level (except in philosophy). Majors in journalism, preprofessional writing, and music performance are also offered. Art students earn a Bachelor of Fine Arts (BFA) degree in studio work.

Department of Art

The Department of Art offers a full range of studio art courses in the areas of fine arts (drawing, painting, printmaking, photography and sculpture); design (advertising design, computer graphics, and product and industrial design); crafts (ceramics, metalwork and jewelry making, and design in wood) leading to the Bachelor of Fine Arts Degree; art history (studies emphasize contemporary, modern, ancient, and non-western art) leading to the Bachelor of Fine Arts degree; and certification classes in art education.

Art Major for Bachelor of Fine Arts Degree			Semester
Core Requirements for All Studio Art Majors			Hours
ART 110	Drawing Processes and Concepts I	3	
ART 111	Drawing Processes and Concepts II	3	
ART 120	Design Processes and Concepts I	3	
ART 121	Design Processes and Concepts II	3	
ART 201	Survey of Modern Art: Impressionism to 1960	3	
ART 202	Survey of Contemporary Art: 1960 to the Present	3	
Total			18

Level 3 General Studies Requirements for Studio Art Majors:		
ART 401	Modern Art History: Theory and Criticism	3
ART 475	Senior Experience Studio: Portfolio Development and Thesis Show	3
Total		6

Students may choose one of the three areas of emphasis: fine arts, design, or crafts.

Fine Arts Area of Emphasis			Semester
			Hours
Fine Arts (15 hours in area of concentration)			21
Select a combination of 15 hours from the following two areas:			
Design		6 or 9	
Crafts		6 or 9	
ART 200	General History of Art	3	
Art History (upper division)		3	
Total			42

Design Area of Emphasis			Semester
			Hours
Applied Arts (15 hours in area of concentration)			21
Select a combination of 15 hours from the following two areas:			
Crafts		6 or 9	
Fine Arts		6 or 9	

ART 200	General History of Art	3
Art History (upper-division)		3
Total		42

Crafts Area of Emphasis			Semester
			Hours
Crafts (15 hours in area of concentration)			21
Select a combination of 15 hours from the following two areas:			
Applied Arts		6 or 9	
Fine Arts		6 or 9	
ART 200	General History of Art	3	
Art History (upper-division)		3	
Total			42
Total Hours Required			66

(A minimum of 33 upper-division art hours required.)
Minor requirements for art majors are optional.

Art History Major for Bachelor of Fine Arts			Semester
Core Requirements for All Art History Majors			Hours
ART 110	Drawing Processes and Concepts I	3	
ART 111	Drawing Processes and Concepts II	3	
ART 120	Design Processes and Concepts I	3	
ART 121	Design Processes and Concepts II	3	
ART 201	Survey of Modern Art: Impressionism to 1960	3	
ART 202	Survey of Contemporary Art: 1960 to the Present	3	
Total			18

Level 3 General Studies Requirement for Art History Majors:			
ART 401	Modern Art History: Theory and Criticism		3
Total			3
Art History (required)			15
ART 200			3
*Fine Arts		3 or 6	
*Design		3 or 6	
*Crafts		3 or 6	
Art Electives			6
*15 hours are required between these 3 categories.			
Total			39
Total hours required			60

(A minimum of 27 upper-division art hours required.)
Minor requirements for art majors are optional.

Industrial Design Major for Bachelor of Arts Degree

No minor is required

The industrial design major is a joint program offered through the Art Department and Industrial and Technical Studies leading to a bachelor of arts degree.

		Semester Hours
	General Studies	36
ART 110	Drawing Processes and Concepts I	3
ART 120	Design Processes and Concepts I	3
ART 121	Design Processes and Concepts II	3
ART 201	Survey of Modern Art: Impressionism to 1960	3
ART 240	Beginning Advertising Design	3
ART 245	Beginning Product and Industrial Design	3
ART 300	Art Nouveau	3
or		
ART 303	History of Art Between World Wars	3
ART 340	Intermediate Advertising Design	3
ART 345	Intermediate Product and Industrial Design	3
ART 445	Advanced Product and Industrial Design I	3
ART 446	Advanced Product and Industrial Design II	3
ITS 101	Introduction to Woodworking	4
ITS 103	Finishing Materials & Processes	2
ITS 113	Introduction to Plastics	3
ITS 120	Introduction to General Metals: Cold Metals	2
ITS 122	Introduction to General Metals: Hot Metals	2
ITS 143	Introduction to Industrial Drawing	2
ITS 255	Introduction to Photography	3
ITS 341	Computer Aided Drafting for Industry	3
ITS 380	Industrial Safety and Production	4
ITS 403	Advanced Wood Processes	4
PSY 441	Human Factors Engineering	3
	Elective courses	19
	(Selected in consultation with advisor, at least 10 of which must be upperdivision).	
Total		120

Art Certification: K-12

Teacher certification for art majors is available through the Art Department. An art major is required.

		Semester Hours
ART 338	Introduction of Art Education	4
EDU 221	Processes of Education in Urban Secondary Schools	3
EDU 222	Field Experience in Urban Secondary Schools	2
EDU 320	The Adolescent as a Learner	3
EDU 321	Secondary School Curriculum and Classroom Management	3
EDU 322	Field Experience in Tutoring and Materials Construction	2
EDU 360	The Exceptional Child in the Classroom	3
RDG 328	Teaching of Reading and Writing in the Content Areas	4
ART 438	Art Methods/Materials: K-12	4
EDU 419*	Student Teaching and Seminar: Elementary (K-6)	8, 10
EDU 429*	Student Teaching and Seminar: Secondary (6-12)	8, 10
ART 439	Integrating the Arts for Gifted & Talented	3
Total		47-51

In addition to field experiences included in required coursework, students must present evidence of having completed at least 200 hours of work with children. This may be accomplished through work with Boy Scouts, Girl Scouts, church groups, tutorial programs, or similar activities. Students should plan their volunteer work in consultation with the Art Education advisor.

Students who seek certification must pass a public speaking course (SPE 101) with a grade of "B" or better, or obtain a waiver. Students must also achieve satisfactory scores on the basic skills exams in reading, mathematics, and spelling (C.A.T.).

*Student teaching is comprised of daily full-time work during 15 weeks, split eight and seven weeks between elementary and secondary levels for K-12.

Minor in Art**Required Courses**

		Semester Hours
ART 110	Drawing Processes and Concepts I	3
ART 111	Drawing Processes and Concepts II	3
ART 120	Design Processes and Concepts I	3
ART 121	Design Processes and Concepts II	3
ART 201	Survey of Modern Art: Impressionism to 1960	3
ART 202	Survey of Contemporary Art: 1960 to the Present	3
Subtotal		18
Electives		9
	Minimum of one upper division studio course and one upper division art history course	
Total		27

Communications Multi-Major for Bachelor of Arts**Communications: Visual****Sponsored by the Department of Art**

The visual communications area of concentration offers students a sequence of art courses in graphic communications, including drawing and design as well as a broad acquaintance with the visual arts in contemporary and historical perspective.

To become knowledgeable in the arts as related to present day communications media, students have the opportunity to pursue graphic courses in the fine arts of drawing, painting and printmaking, or in the applied art fields of graphic communications and advertising design, photography and video.

		Semester Hours
COM 272	Introduction to Communication Concepts and Systems	3
SPE 374	Psychology of Communication	3
or		
SPE 410	Techniques of Persuasion	3
Subtotal		6

Required Lower-Division Courses

ART 110	Drawing Processes and Concepts I	3
ART 111	Drawing Processes and Concepts II	3
ART 120	Design Processes and Concepts I	3
ART 121	Design Processes and Concepts II	3
ART 201	Survey of Modern Art: Impressionism to 1960	3
Subtotal		15

Required Art History (select 3 hours)

ART 303	History of Art Between World Wars	3
or		
ART 401	Modern Art History: Theory and Criticism	3
Subtotal		3

Required Studio Courses**Fine Arts (select 6 hours)**

ART 210	Beginning Life Drawing	3
ART 215	Beginning Painting	3
ART 225	Beginning Printmaking	3
ART 220	Beginning Photography	3
Subtotal		6

Applied Arts

ART 240	Beginning Advertising Design	3
ART 340	Intermediate Advertising Design	3
Subtotal		6

Electives

Six hours elected from upper-division art courses	6
Total	42

English Department

The Department of English offers instruction in a variety of areas: literature, writing, language and linguistics, and elementary and secondary 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 elect English courses to enhance their general education. Students may also choose a major or minor from different areas of emphasis.

All students who are considering a major or minor in any of the areas of emphasis in the Department of English **are expected to consult with faculty for advising.**

The English major may choose an emphasis in

1. literature
2. elementary school teaching, leading to certification
3. secondary education, leading to certification
4. creative writing
5. preprofessional writing

The English minor may choose an emphasis in

1. literature
2. dramatic literature
3. language and linguistics
4. practical writing
5. secondary education
6. creative writing

English Major for Bachelor of Arts

Literature Emphasis

The English major or minor, literature emphasis, encompasses a full 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, fostering 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 of endeavor, including academe and the world of business.

Required Core

Each of the following courses:

ENG 240	Interpreting Literature: Poetry, Fiction, Drama	3
ENG 244	Myth, Symbol, Allusion in Literature	3
Subtotal		6

Each of the following courses:

ENG 211	World Literature: Homer to Cervantes	3
ENG 221	American Literature: Bradford to Whitman	3
ENG 231	British Literature: Beowulf to Shakespeare	3
Subtotal		9

Two of the following courses:

ENG 212	World Literature: Moliere to Sartre	3
ENG 222	American Literature: Dickinson to Oates	3
ENG 232	British Literature: Donne to Johnson	3
ENG 233	British Literature: Blake to Beckett	3
Subtotal		6

The following course:

ENG 310	Roots of British Literary Tradition	3
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Required Upper-Level Courses

ENG 302	History of the English Language	3
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Select three of the following courses:

ENG 321	Development of American Drama	3
ENG 323	Development of the American Novel	3
ENG 331	Development of British Drama: Mysteries to Melodrama	3

ENG 333	Development of the British Novel	3
ENG 340	Development of Modern Poetry	3
ENG 341	Masterpieces of Continental Literature	3
Subtotal		9

Select two of the following courses (at least one from 413):

ENG 411	Advanced Studies in Literature	3
ENG 412	Selected Themes in Literature	3
ENG 413	Major Authors	3
ENG 414	Modern Continental, British, and American Drama	3
ENG 431	Shakespeare: Comedies	3
or		
ENG 432	Shakespeare: Tragedies	3
Subtotal		6

The following course:

ENG 461	Theories and Techniques in Literary Criticism	3
Total Semester Hours Required		45

Elementary School Teaching Area of Emphasis

The elementary school teaching emphasis in English, offered in conjunction with the Colorado State Department of Education certification program, prepares future teachers of elementary education to understand and teach the diverse subject matter required for certification. 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 multi-cultural literature, accommodate cultural and ethnic diversity in language and writing, and communicate effectively with a diverse population of students.

**Semester
Hours**

Required Courses

I. Literature Core Courses:

ENG 240	Interpreting Literature: Poetry, Fiction, Drama	3
ENG 222	American Literature: Dickinson to Oates	3
ENG 244	Myth, Symbol, and Allusion in Literature	3
ENG 310	Roots of British Literary Tradition	3
Semester Hours Required		12

II. Language/Linguistics Core Courses:

ENG 201	The Nature of Language	3
or		
ENG 202	Systems of English Grammar	3
ENG 302	History of the English Language	3
Semester Hours Required		6

III. Writing/Composition Courses:

ENG 251	Intermediate Composition	3
or		
ENG 252	Introduction to Creative Writing	3
ENG 351	Advanced Composition	3
Semester Hours Required		6

III. Language Arts Core Courses:

ENG 346	Children's Literature	3
ENG 465	Teaching Composition in Elementary Schools	3
ENG 466	Teaching Literature and Language K-6	3
RDG 313	Teaching Reading in the Elementary School K-6	*
Semester Hours Required		9

V. English Electives

Two upper division English courses selected in consultation with and approved by designated English advisor. **6**

Recommended Electives:

Communication

ENG 363	Teaching Communications	3
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Writing

ENG 352	Creative Writing Workshop	3
ENG 353	Techniques of Critical Writing	3

Language

ENG 301	Modern English Language Studies	
	(Prerequisite: ENG 201)	3
ENG 303	Semantics (Prerequisite: ENG 201)	3

Literature

ENG 324	African American Literature	3
ENG 341	Masterpieces of Continental Literature	3
ENG 342	The English Bible as Literature	3
ENG 343	Classical Mythology	3
ENG 347	Literature for Adolescents	3
ENG 349	Chicano Folklore of the Southwest	3
Total Semester Hours Required		39

*RDG 313 meets the reading requirements for Colorado State certification but is carried under the student's 42-semester hour professional education requirements.

Secondary School Teaching Emphasis

The education emphasis in English, offered in conjunction with the Colorado State Department of Education certification program, prepares future teachers of English to understand and teach the diverse subject matter required for certification. This program equips students with a wide variety of language principles and skills; practical experience in developing and presenting the process of writing; sound knowledge of approaches to literature and literary genres, periods, and authors (including a special focus on literature for adolescents); 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 CoursesSemester
Hours**I. Literature Core Courses:**

ENG 221	American Literature: Bradford to Whitman	3
or		
ENG 222	American Literature: Dickinson to Oates	3
ENG 240	Interpreting Literature: Poetry, Fiction, Drama	3
ENG 244	Myth, Symbol, and Allusion in Literature	3
ENG 310	Roots of British Literary Tradition	3
Subtotal		12

II. Language/Linguistics Core Courses:

ENG 302	History of the English Language	3
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Select two of the following:

ENG 201	The Nature of Language	3
ENG 202	Systems of English Grammar	3
ENG 301	Modern English Language Studies	3
ENG 303	Semantics	3
Subtotal		6

Note: Language/linguistics certification requirements are under review. Consult a designated advisor.

III. Writing/Composition Courses:

ENG 351	Advanced Composition	3
ENG 463	Composition Teaching Workshop	6
Subtotal		9

Note: A combination of ENG 352 and ENG 362 may be substituted for ENG 463.

IV. English Education Core Courses:

ENG 347	Literature for Adolescents	3
ENG 361	Teaching English in Secondary Schools	3
ENG 363	Teaching Communications	3
RDG 328	Teaching of Reading and Writing in the Content Areas	*
Subtotal		9

V. English Electives:

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

Total Semester Hours Required 45

*RDG 328 meets the reading requirements for English certification but is carried under the student's professional education requirements.

NOTE: Students with a bachelor of arts in English from an accredited institution who are seeking English certification will receive credit for Sections I and V, in addition to any other courses in Sections II, III, and IV for which they have existing credits.

Creative Writing Emphasis

The creative writing emphasis is designed to give the creative writer extensive practice in various genres of literature as well as a good foundation in appreciation of the English language literary heritage. Courses are also offered to assist the creative writer in finding markets for literary work and assessing the potential of writing as a career.

Semester
Hours**Required Core****I. Each of the following courses:**

ENG 240	Interpreting Literature: Poetry, Fiction, Drama	3
ENG 244	Myth, Symbol, Allusion in Literature	3

II. Two of the following courses:

ENG 211	World Literature: Moliere to Cervantes	3
ENG 221	American Literature: Bradford to Whitman	3
ENG 231	British Literature: Beowulf to Shakespeare	3

III. Two of the following courses:

ENG 212	World Literature: Moliere to Sartre	3
ENG 222	American Literature: Dickinson to Oates	3
ENG 232	British Literature: Donne to Johnson	3
ENG 233	British Literature: Blake to Beckett	3

IV. The following course:

ENG 310	The Roots of British Literary Tradition	3
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Required Courses**I. Entry Course:**

ENG 252	Introduction to Creative Writing	3
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II. General Writing Courses (select one):

ENG 107	English Usage and Grammar	3
ENG 251	Intermediate Composition	3
ENG 351	Advanced Composition	3
ENG 353	Techniques of Critical Writing	3

III. Creative Writing Workshops (select any five):

ENG 352	Drama Workshop	3
ENG 352	Fiction Workshop	3
ENG 352	Magazine Editing Workshop	3
ENG 352	Poetry Workshop	3
ENG 352	Science Fiction Workshop	3
ENG 352	Scriptwriting Workshop	3
ENG 352	Writing as a Profession	3
ENG 352	Writing for the Markets	3
ENG 352	Writing the Novel Workshop	3
ENG 352	Writing Your Autobiography	3

IV. Exit Course:

ENG 452	Advanced Creative Writing	3
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Total Semester Hours Required 45

Pre-Professional Writing Emphasis

Every profession benefits from having among its members people who write exceptionally well; rewards tend to accrue to such people. This emphasis is designed to enable talented writers majoring in other fields to develop their writing abilities and, thereby, enhance their career opportunities; for this reason it is expected that the pre-professional writing emphasis will be a second major for those who pursue it.

The program provides the student with an intensive, coherent sequence of instruction in writing and linguistics interspersed with appropriate study of fine writing from the English language literary heritage.

School of Letters, Arts, and Sciences

Required Courses		Semester Hours
ENG 251	Intermediate Composition	3
ENG 201	The Nature of Language	3
or		
ENG 202	Systems of English Grammar	3
ENG 303	Semantics	3
ENG 351	Advanced Composition	3
ENG 353	Techniques of Critical Writing	3
SPE 374	Psychology of Communication	3
or		
ENG 363	Teaching Communications	3
Subtotal		18

Students will take six literature courses of which at least two must be upper division; these courses must be distributed among at least four of the following five areas:

1. world or continental literature
2. British literature: beginnings to seventeenth century
3. British literature: seventeenth century to nineteenth century
4. American literature
5. Twentieth century literature

Total Semester Hours Required. 36

English Minor

Creative Writing Emphasis

The English minor with emphasis in creative writing serves students who desire instruction and practice in the production of fiction, poetry and/or plays. The minor includes a good foundation in the appreciation of literature and criticism. Courses are also offered to assist the creative writer in finding markets for literary work and assessing the potential of writing as a career.

Required Courses		Semester Hours
ENG 252	Introduction to Creative Writing	3
ENG 352	Creative Writing Workshops (combination of three distinct topics)	9
ENG 452	Advanced Creative Writing	3
Subtotal		15

One of the following:

ENG 107	English Usage and Grammar	3
ENG 251	Intermediate Composition	3
ENG 351	Advanced Composition	3
ENG 353	Techniques of Critical Writing	3
Subtotal		3

Two of the following:

ENG 211	World Literature: Homer to Cervantes	3
ENG 212	World Literature: Moliere to Sartre	3
ENG 221	American Literature: Bradford to Whitman	3
ENG 222	American Literature: Dickinson to Oates	3
ENG 231	British Literature: Beowulf to Shakespeare	3
ENG 232	British Literature: Donne to Johnson	3
ENG 233	British Literature: Blake to Beckett	3
Subtotal		6
Total Semester Hours Required.		24

Dramatic Literature Emphasis

The English minor with emphasis in dramatic literature serves students who wish to develop skills in reading, writing, and thinking about the texts of drama. The program is designed to meet the needs of anyone involved in the history, teaching, writing, production, or performance of drama.

I. Introductory Courses:

ENG 112	Introduction to Drama	3
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A second course, introductory in nature, is to be selected by agreement of the student and the department advisor. The course need not be an English course, but if not, it should be an introductory course related to the student's major interest in the use of drama. 3

II. Writing Course(s) One of the following courses:

ENG 252	Introduction to Creative Writing	3
ENG 352	Creative Writing Workshop: Scriptwriting	3
ENG 353	Techniques of Critical Writing	3
Subtotal		3

III. Literature Electives (nine hours to be chosen in consultation with an advisor):

ENG 131	Introduction to Shakespeare	3
ENG 321	Development of American Drama	3
ENG 331	Development of British Drama:	
	Mysteries to Melodrama	3
ENG 431	Shakespeare: Comedies	3
ENG 432	Shakespeare: Tragedies	3
ENG 413	Major Authors (Playwrights)	3
ENG 414	Modern Continental, British, and American Drama	3
ENG 461	Theories and Techniques in Literary Criticism	3
Subtotal		9

IV. Final Study - One of the following:

ENG 480	Workshop	3
ENG 498	Independent Study	3
ENG 499	Internship	3
Subtotal		3
Total Semester Hours Required.		21

NOTE: The final study undertaken in 480, 498, or 499 presents the opportunity for students electing the minor to devote significant attention to one in-depth project for completion of the study. The project should be based on the reading of a dramatic text, but should combine this experience with some other area of design, management, performance, or writing. The project should combine the skills of reading drama with those of the associated area of expertise. The project is to be proposed by the student, approved by an advisor in the Department of English, and directed in collaboration with a second advisor, associated with the other area of expertise fundamental to the study. The study may take the form of a workshop, an independent study, an internship, or a practicum.

Literature Emphasis

I. Three of the following:

ENG 211	World Literature: Homer to Cervantes	3
or		
ENG 212	World Literature: Moliere to Sartre	3
ENG 221	American Literature: Bradford to Whitman	3
or		
ENG 222	American Literature: Dickinson to Oates	3
ENG 231	British Literature: Beowulf to Shakespeare	3
or		
ENG 232	British Literature: Donne to Johnson	3
or		
ENG 233	British Literature: Blake to Beckett	3
Subtotal		9

II. One of the following courses:

ENG 201	The Nature of Language	3
ENG 202	Systems of English Grammar	3
ENG 251	Intermediate Composition	3
ENG 252	Introduction to Creative Writing	3
ENG 351	Advanced Composition	3
Subtotal		3

III. Two electives from the following courses:

ENG 321	Development of American Drama	3
ENG 323	Development of the American Novel	3
ENG 331	Development of British Drama:	
	Mysteries to Melodrama	3
ENG 333	Development of the British Novel	3
ENG 340	Development of Modern Poetry	3
ENG 341	Masterpieces of Continental Literature	3
Subtotal		6

IV. Two electives from the following courses (one must be 413):

ENG 411	Advanced Studies in Literature	3
ENG 412	Selected Themes in Literature	3

ENG 413	Major Authors	3
ENG 414	Modern Continental, British and American Drama	3
ENG 431	Shakespeare: Comedies	3
or		
ENG 432	Shakespeare: Tragedies	3
Subtotal		6
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. Taken in an appropriate order made evident by careful advising, the courses in the program educate students both to use and to appreciate their language. The minor requires students to engage in vigorous, progressively more explicit and precise analysis and synthesis as they examine facts and fallacies about the miracle of language.

Required Core

		Semester Hours
ENG 201	The Nature of Language	3
ENG 202	Systems of English Grammar	3
ENG 301	Modern English Language Studies	3
ENG 302	History of the English Language	3
ENG 303	Semantics	3
ENG 401	Studies in Linguistics	3
Subtotal		18

Any one of the following specific titles:

Applied Linguistics
Descriptive Linguistics
Psycholinguistics
Sociolinguistics
Stylistics

Interdisciplinary Elective Courses (chosen in consultation with and approved by departmental advisor). Any one of the following:

ANT 233	Cross-Cultural Communication	3
EDU 337	Language and Cognitive Development	4
PHI 111	Language, Logic, and Persuasion	3
SPE 352	Language Acquisition	3
Subtotal		3-4
Total Semester Hours Required		21-22

Practical Writing Minor

The practical writing minor is a humanities-based, career-oriented program enabling students to develop writing skills as an adjunct to any major. Students will be prepared to do the practical writing found in magazines, newspapers, and newsletters. Students completing the program are expected to be versatile writers capable of applying the principles of good writing to different audiences and purposes.

Required Core

		Semester Hours
ENG 107	English Usage and Grammar	3
ENG 201	The Nature of Language	3
ENG 303	Semantics	3
ENG 351	Advanced Composition	3
ENG 353	Techniques of Critical Writing	3
Subtotal		15

Elective Courses (Choose three from the following):

ENG 352	Writing as a Profession	3
ENG 398	Cooperative Education: English Internship	3
ENG 498	Independent Study: Writing Project	3
JRN 182	Beginning Reporting and News Writing	3
JRN 381	Feature Writing for Newspapers	3
JRN 481	Feature Writing for Magazines	3

COM 261	Introduction to Technical Writing	3
MKT 305	Business Research and Report Writing	3
SPE 309	Argumentation and Advocacy	3
SPE 410	Techniques of Persuasion	3
Subtotal		9
Total Semester Hours Required		24

In addition to pursuing the practical writing minor, some students may wish to seek the recognition of competency award as qualified practical writers. A student seeking this award must apply to the Department Composition Committee before completing nine hours applicable to the minor, and, if approved, must work out with the committee a coordinated sequence of courses, one of which must be English 498, independent study. The recognition procedure will include development of a portfolio which will be prepared under the guidance of the committee. This portfolio, designed to demonstrate student proficiency, will include such items as a letter in which students describe the development of their skills in writing and the extent to which they see these as valuable to their careers, and two different demonstrations of their ability to write and edit under pressure. The portfolio materials will be juried by at least two members of the Composition Committee. Some of the preparation may carry up to three hours credit under English 498.

Secondary School Teaching Emphasis

Secondary School Teaching Emphasis		Semester Hours	
I. Each of the following courses:			
ENG 347	Literature for Adolescents	3	
ENG 351	Advanced Composition	3	
ENG 361	Teaching English in Secondary Schools	3	
ENG 362	Teaching Composition in Secondary Schools	3	
Subtotal		12	
II. One of the following courses:			
ENG 301	Modern English Language Studies	3	
ENG 302	History of the English Language	3	
ENG 303	Semantics	3	
Subtotal		3	
III. Three English electives from 300 level or 400 level courses selected in consultation with and approved by designated English Department advisors.			9
Total Semester Hours Required.		24	

This minor does not satisfy MSCD requirements for certification in secondary English, but does meet minimum requirements for those seeking eligibility to teach English in secondary schools accredited by the North Central Association. Students working toward this minor are expected to plan and carry out their programs in consultation with designated English Department advisors.

Journalism Department

Journalism Major for Bachelor of Arts

The journalism major prepares students for careers dealing with news and information media, including the press, and public relations. Proficiency in standard written English is a prerequisite for all journalism courses. Students without such proficiency should not register for any journalism course beyond JRN 181. The faculty may recommend that the student take ENG 101 and ENG 102 before taking any journalism course beyond JRN 181.

Required Courses

Required Courses			Semester Hours
JRN	181	Introduction to Journalism and Mass Media	3
JRN	182	Beginning Reporting and News Writing	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	286*	Intermediate Reporting and News Writing	3
JRN	381*	Feature Article Writing for Newspapers	3
JRN	383	Contemporary Issues	3
JRN	385	Public Affairs Reporting	3
JRN	386	College Newspaper Practicum	3
JRN	481	Feature Article Writing for Magazines	3
JRN	482	Advanced News Editing, Copyreading and Principles of Layout	3

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JRN	486	Advanced Reporting and News Writing	3
JRN	487	Ethical Issues in Journalism	3
Total Semester Hours Required			36

*Typing proficiency is required for every journalism course beyond JRN 282.

*JRN 286 is a prerequisite for JRN 381, 383, 385, 386, 481 and 486.

*JRN 381 is a prerequisite for JRN 481.

Journalism Minor

I. Each of the following courses:

JRN	181	Introduction to Journalism	3
JRN	182	Beginning Reporting and News Writing	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	286*	Intermediate Reporting and News Writing	3
Subtotal			12

II. Three of the following courses:

JRN	381	Feature Article Writing for Newspapers	3
JRN	383	Contemporary Issues	3
JRN	385	Public Affairs Reporting	3
JRN	386	College Newspaper Practicum	3
JRN	481	Feature Article Writing for Magazines	3
JRN	482	Advanced News Editing, Copyreading and Principles of Layout	3
JRN	486	Advanced Reporting and News Writing	3
JRN	487	Ethical Issues in Journalism	3
Subtotal			9
Total Semester Hours Required			21

*Typing proficiency is required for every journalism course beyond JRN 282.

Public Relations Minor

The public relations minor prepares students for careers related to institutional and organizational information distribution. Emphasis in the program is on strong news writing skills, problem solving and planning, and publication production.

Required Courses

JRN	181	Introduction to Journalism	3
JRN	182	Beginning Reporting and News Writing	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	284	Fundamentals of Public Relations	3
JRN	286	Intermediate Reporting and News Writing	3
JRN	381	Feature Article Writing for Newspapers	3
JRN	382	Public Relations Writing and Strategies	3
JRN	398	Cooperative Education - Public Relations	3
Total Semester Hours Required			24

A suitable basic photography course may, upon approval of the advisor, be substituted for one of the above courses.

Other courses may be recommended by the advisor, depending on the student's particular needs.

With the approval of the journalism faculty, journalism majors may substitute certain courses for required courses as a part of their major.

Modern Languages

The Department of Modern Languages offers major programs in Spanish and modern foreign languages, minor programs in French, German, and Spanish, and teacher education programs in Spanish and modern foreign languages. Courses in other foreign languages and in occupational or professional fields are offered in order to meet student and community needs. In addition, the department administers several education programs abroad.

Registration for courses is in accordance with previous preparation. Consequently, students will register for foreign language courses as follows: No previous study, or less than one year in high school – 101; students with one year in high school who feel their

background is weak – 101; one semester in college – 102; one year in college – 211 and/or 231 for German and Spanish and 201 for French; two years in high school – 211 and/or 231 for German and Spanish and 201 for French, or 102, if needed; three years in high school or one and one-half years in college – 212 and/or 232 for German and Spanish and 202 for French; or 211 and/or 231 for German and Spanish and 201 for French, if needed; four years in high school or two years in college – 300 level courses, or 212 and/or 232 for German and Spanish and 202 for French, if needed.

The above regulations may not be applicable if students have had no professional instruction in their chosen foreign language within the past two years. If students feel that they have insufficient preparation for the required level, they should strengthen their background by taking a course recommended by the Modern Language Department. 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.

Spanish

Major for Bachelor of Arts

Required Courses			Semester Hours
SPA	211	Intermediate Spanish	3
SPA	212	Spanish Reading and Conversation	3
SPA	231	Spanish Grammar and Composition I	3
SPA	232	Spanish Grammar and Composition II	3
SPA	311	Advanced Conversation	3
SPA	314	Advanced Composition	3
SPA	315*	Spanish Phonetics: Theory and Practice	3
SPA	320	Culture and Civilization of Spain	3
or			
SPA	321	Spanish-American Culture and Civilization	3
or			
SPA	322	Folklore and Culture of the Mexican Southwest	3
SPA	325	Introduction to Literary Studies in Spanish	3
SPA	340	Survey of Spanish Literature I	3
or			
SPA	341	Survey of Spanish Literature II	3
SPA	351	Masterpieces of Latin American Literature	3
SPA	401	Advanced Spanish Writing and Grammar I	3
SPA	402	Advanced Spanish Writing and Grammar II	3
SPA	411	Contemporary Spanish Literature	3
or			
SPA	412	Contemporary Latin American Literature	3
MDL	496*	Teaching Foreign Languages in the Secondary Schools	3
Spanish electives**			3
Total			48***

*Required only when seeking a teacher certificate.

**Must be advanced courses and taken with department approval.

***Only 42 semester credit hours for those not seeking Teacher Certification.

Minor in Spanish

Required Courses			Semester Hours
SPA	211	Intermediate Spanish	3
SPA	212	Spanish Reading and Conversation	3
SPA	231	Spanish Grammar and Composition I	3
SPA	232	Spanish Grammar and Composition II	3
SPA	311	Advanced Conversation	3
SPA	320	Culture and Civilization of Spain	3
or			
SPA	321	Spanish-American Culture and Civilization	3
or			
SPA	322	Folklore and Culture of the Mexican Southwest	3
SPA	325	Introduction to Literary Studies in Spanish	3
Total			21

French**Minor in French****Required Courses**

FRE 201	Intermediate French I	3
FRE 202	Intermediate French II	3
FRE 211	French Reading and Conversation	3
FRE 301	Introduction to Advanced French Studies	3
FRE 311	Survey of French Literature I	3
or		
FRE 312	Survey of French Literature II	3
FRE 351	French Culture and Civilization	3
French electives*		3
Total		21

*Must be course at the 300 or 400 level.

German**Minor in German****Required Courses**

GER 211*	German Reading and Conversation	3
GER 212*	German Civilization	3
GER 231*	German Vocabulary Building and Grammar	3
GER 232*	German Composition and Free Writing	3
Subtotal		12

Select one of the following literature courses:

GER 321**	Survey of German Literature I	3
GER 322**	Survey of German Literature II	3
GER 323**	Contemporary German Writers	3
GER 351**	Lessing, Goethe, and Schiller	3
Subtotal		3

Select two of the following skills courses:

GER 301	Third Year German Conversation	3
GER 331	Advanced German Composition and Grammar	3
GER 340	German for Business	3
GER 341	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.

Modern Foreign Languages**Major for Bachelor of Arts****Required Courses**

The composite modern foreign languages major involves a minimum of 48 hours in any two modern languages, at least 12 hours in each. Students are advised into intermediate and advanced classes in each language on the basis of individual background and need. The minimum 12 hours in each of the two chosen languages must be taken as follows:

Spanish

SPA 211	Intermediate Spanish	3
SPA 212	Spanish Reading and Conversation	3
SPA 231	Spanish Grammar and Composition I	3
SPA 232	Spanish Grammar and Composition II	3
Subtotal		12

French

FRE 201	Intermediate French I	3
FRE 202	Intermediate French II	3
FRE 211	French Reading and Conversation	3
FRE 301	Introduction to Advanced French Studies	3
Subtotal		12

German

GER 211	German Reading and Conversation	3
GER 212	German Civilization	3
GER 231	German Vocabulary Building and Grammar	3

GER 232	German Composition and Free Writing	3
Subtotal		12

The remaining hours to complete the 48 hours required must be taken with department approval.

For those seeking a teacher certificate in modern foreign languages (French, German, Spanish), all of the courses in one of the following areas of emphasis are required.

French Area of Emphasis

FRE 201	Intermediate French I	3
FRE 202	Intermediate French II	3
FRE 211	French Reading and Conversation	3
FRE 301	Introduction to Advanced French Studies	3
FRE 311	Survey of French Literature I	3
FRE 312	Survey of French Literature II	3
FRE 315	French Phonetics: Theory and Practice	3
FRE 331	Advanced French Composition and Grammar	3
FRE 332	Advanced Conversation	3
FRE 351	French Culture and Civilization	3
FRE 440	Existentialism	3
FRE 452	Modern French Theater	3
FRE 453	The French Novel	3
FRE 475	Senior Seminar in French Studies	3
French electives		3
MDL 496	Teaching Foreign Languages in the Secondary Schools	3
Total		48

German Area of Emphasis

GER 211	German Reading and Conversation	3
GER 212	German Civilization	3
GER 231	German Vocabulary Building and Grammar	3
GER 232	German Composition and Free Writing	3
GER 315	German Phonetics: Theory and Practice	3
GER 321	Survey of German Literature I	3
GER 322	Survey of German Literature II	3
GER 323	Contemporary German Writers	3
GER 331	Advanced German Composition and Grammar	3
GER 351	Lessing, Goethe, and Schiller	3
GER 411	The German Novel of the Nineteenth and Early Twentieth Centuries	3
or		
GER 412	German Drama of the Nineteenth and Twentieth Centuries	3
GER 421	Advanced Conversation: Present-day Germany	3
German electives		3
MDL 496	Teaching Foreign Languages in the Secondary Schools	3
Total		42

Spanish Area of Emphasis

SPA 211	Intermediate Spanish	3
SPA 212	Spanish Reading and Conversation	3
SPA 231	Spanish Grammar and Composition I	3
SPA 232	Spanish Grammar and Composition II	3
SPA 311	Advanced Conversation	3
SPA 314	Advanced Composition	3
SPA 315	Spanish Phonetics: Theory and Practice	3
SPA 320	Culture and Civilization of Spain	3
or		
SPA 321	Spanish-American Culture and Civilization	3
or		
SPA 322	Folklore and Culture of the Mexican Southwest	3
SPA 325	Introduction to Literary Studies in Spanish	3
SPA 340	Survey of Spanish Literature I	3
or		
SPA 341	Survey of Spanish Literature II	3
SPA 401	Advanced Spanish Writing and Grammar I	3
SPA 402	Advanced Spanish Writing and Grammar II	3
SPA 411	Contemporary Spanish Literature	3
or		
SPA 412	Contemporary Latin-American Literature	3
MDL 496	Teaching Foreign Languages in the Secondary Schools	3
Total		42

Music

Metropolitan State College of Denver is an accredited institutional member of the National Association of Schools of Music. The Department of Music offers two NASM-accredited degree programs, music education and music performance, for students wishing to prepare themselves for careers in music. Students pursuing these majors are not required to fulfill a minor for graduation. In addition, the contract major is available for students seeking a more personalized degree program in music.

The music education degree program is designed to prepare students for careers teaching instrumental and/or choral music at the levels K-12. By taking an additional 18 semester hours beyond the bachelor's degree (EDU 419 and 429), the student becomes eligible for K-12 certification in the State of Colorado. With these additional 18 hours, this degree program is fully accredited by the Colorado State Department of Education. Students seeking teaching credentials in music must satisfy all requirements of the Teacher Education Program in the Division of Education in addition to all requirements of the Department of Music.

The music performance degree program is designed to prepare students for careers in music performance, further graduate specialization or private studio teaching. In order to pursue this course of study, the student must demonstrate, through audition, the capability of developing a high level of musicianship in performance.

Students wishing to gain a broad, general coverage of the field of music may pursue the minor in music. The department offers a wide range of courses, including some specifically designed for non-music students wishing to enhance their general appreciation and enjoyment of music. Non-music students may also participate in large and small music ensembles, including band, orchestra, choir, and chamber music.

All students majoring or minoring in music *must* participate in the departmental advising program scheduled during the first week of each semester. Transfer students 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 advising, placement, and audition appointments, contact the Department of Music.

Music Education Major for Bachelor of Arts

Core Requirements for all Music Education Majors

Required Courses		Semester Hours
MUS 111	Music Theory I	3
MUS 112	Music Theory Lab I	1
MUS 113	Music Theory II	3
MUS 114	Music Theory Lab II	1
MUS 211	Music Theory III	3
MUS 212	Music Theory Lab III	1
MUS 321	Music History I	3
MUS 322	Music History II	3
MUS 171	Private Instruction I (Primary Performance Area)	2
MUS 172	Private Instruction II (Primary Performance Area)	2
MUS 271	Private Instruction III (Primary Performance Area)	2
MUS 272	Private Instruction IV (Primary Performance Area)	2
MUS 371	Private Instruction V (Primary Performance Area)	2
MUS 372	Private Instruction VI (Primary Performance Area)	2
MUS 161	Class Piano I	1
MUS 162	Class Piano II	1
MUS 315	Instrumental and Choral Scoring and Arranging	2
MUS 332	Secondary School Choral Methods and Materials	2
MUS 339	Supervised Field Experience: Secondary School Choral Methods and Materials	1
MUS 351	Basic Conducting	2
MUS 365	Basic Techniques of Composition	2
MUS 411	Analysis of Music	2
MUS 451	Advanced Conducting	2
SPE 101	Fundamentals of Speech Communication	3

RDG 328	Teaching of Reading and Writing in the Content Areas	4
EDU 212	Elementary Education in United States	3
EDU 264	Urban and Multicultural Education	3
EDU 320	The Adolescent as a Learner	3
EDU 360	The Exceptional Child in the Classroom	3
Total		64

In addition to the above core requirements, music education majors must select one of the following emphases:

Choral Emphasis

MUS 161	Class Voice I	1
MUS 261	Class Piano III	1
MUS 262	Class Piano IV	1
Select 14 hours:		
MUS 281	Large Ensemble*	2
MUS 282	Small Ensemble*	1
MUS 381	Large Ensemble*	2
MUS 382	Small Ensemble*	1

*Note: These course numbers may be repeated for credit. All 14 hours may be earned in any one course number or in any combination of the above numbers.

MUS 331	Elementary School Music Methods and Materials	2
MUS 339	Supervised Field Experience: Elementary School Music Methods and Materials	1
MUS 341	String Techniques and Materials	2
MUS 345	Brass Techniques and Materials	2
MUS 346	Percussion Techniques and Materials	2
MUS 421	Choral Literature	2
Total		28

Instrumental Emphasis

Select 12 hours:		
MUS 281	Large Ensemble*	2
MUS 282	Small Ensemble*	1
MUS 381	Large Ensemble*	2
MUS 382	Small Ensemble*	1

*Note: These course numbers may be repeated for credit. All 12 hours may be earned in any one course number or in any combination of the above numbers.

MUS 333	Elementary School Instrumental Music Methods and Materials	2
MUS 339	Supervised Field Experience: Elementary School Instrumental Music Methods and Materials	1
MUS 334	Secondary School Instrumental Music Methods and Materials	2
MUS 339	Supervised Field Experience: Secondary School Instrumental Music Methods and Materials	1
MUS 341	String Techniques and Materials	2
MUS 343	Woodwind Techniques and Materials	2
MUS 345	Brass Techniques and Materials	2
MUS 346	Percussion Techniques and Materials	2
MUS 348	Marching Band Techniques and Materials	2
Total		28

Music Performance Major for Bachelor of Arts

Core Requirements for all Music Performance Majors

Required Courses		Semester Hours
MUS 111	Music Theory I	3
MUS 112	Music Theory Lab I	1
MUS 113	Music Theory II	3
MUS 114	Music Theory Lab II	1
MUS 211	Music Theory III	3
MUS 212	Music Theory Lab III	1
MUS 321	Music History I	3
MUS 322	Music History II	3
MUS 171	Private Instruction I (Primary Performance Area)	2
MUS 172	Private Instruction II (Primary Performance Area)	2
MUS 273	Performance III (Primary Performance Area)	4
MUS 274	Performance IV (Primary Performance Area)	4

MUS 373	Performance V (Primary Performance Area)	4
MUS 374	Performance VI (Primary Performance Area)	4
MUS 473	Performance VII (Primary Performance Area)	4
MUS 474	Performance VIII (Primary Performance Area)	4
Select 2 hours from the following:*		
MUS 161	Class Instruction (Secondary Performance Area)	1
MUS 162	Class Instruction (Secondary Performance Area)	1
MUS 171	Private Instruction (Secondary Performance Area)	2

*Note: Must be Class Piano I and II unless student is able to pass the private instruction audition in piano.

Exception: Students electing the organ emphasis must take Class Voice I and II unless student is able to pass the private instruction audition in voice.

Select 12 hours:*

MUS 281	Large Ensemble*	2
MUS 282	Small Ensemble*	1
MUS 381	Large Ensemble*	2
MUS 382	Small Ensemble*	1

*Note: These course numbers may be repeated for credit. All 12 hours may be earned in any one course number or in any combination of the above numbers. The ensemble experience throughout the bachelor's degree program should be varied both in size and nature, and should be chosen from those appropriate to the area of specialization.

MUS 351	Basic Conducting	2
MUS 365	Basic Techniques of Composition	2
MUS 411	Analysis of Music	2
MUS 479	Senior Recital	1
Music History or Literature elective		3
Total		70

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

Voice Emphasis

MUS 141	German Diction and Literature for Singers	2
MUS 142	French Diction and Literature for Singers	2
MUS 143	Italian Diction and Literature for Singers	2
MUS 421	Choral Literature	2
MUS 442	Vocal Pedagogy	2
Total		10

Piano Emphasis

MUS 310	Counterpoint	3
MUS 324	Piano Literature	3
MUS 441	Piano Pedagogy	2
Total		8

Organ Emphasis

MUS 310	Counterpoint	3
MUS 421	Choral Literature	2
MUS 451	Advanced Conducting	2
Total		7

Guitar Emphasis

MUS 310	Counterpoint	3
MUS 315	Instrumental and Choral Scoring and Arranging	2
Total		5

Woodwind, Brass, String or Percussion Emphasis

MUS 315	Instrumental and Choral Scoring and Arranging	2
MUS 451	Advanced Conducting	2
Total		4

Minor in Music

Required Courses

		Semester Hours
MUS 111	Music Theory I	3
MUS 112	Music Theory Lab I	1
MUS 113	Music Theory II	3
MUS 211	Music Theory III	3
MUS 321	Music History I	3
MUS 322	Music History II	3

MUS 161	Class Instruction (Performance Area)	1
and		
MUS 162	Class Instruction (Performance Area)	1
or		
MUS 171	Private Instruction I (Performance Area)	2
MUS 381	Large Ensemble*	2
or		
MUS 382	Small Ensemble*	1
Total		24

*Note: These course numbers may be repeated for credit; all four hours may be earned in one course number or in any combination of the above numbers.

Philosophy

Philosophy is the oldest of intellectual disciplines. Its questions are of the most enduring interest because they are the most fundamental to our intellectual and practical concerns. As such, philosophy can be taken to be a critical investigation into the assumptions and implications associated with all ideas across all disciplines, and, in this respect, it is interdisciplinary in character. However, this type of inquiry requires technical concepts and methods, and, hence, it takes on the character of a specialized discipline. Philosophical inquiry is an interaction between speculative and critical thought recognizing no preestablished limits in terms of the scope of either 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 simultaneously 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 penetrate deeply 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:

1. A major for students seeking a solid, general training/background which can serve either as a basis for graduate studies in such varied areas as philosophy, the humanities, law, medicine, business, urban planning and development, etc., 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.
2. 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.

MSCD students who either major or minor in philosophy are encouraged to take appropriate UCD courses whenever such courses 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 UCD courses.

Philosophy Major for Bachelor of Arts

Required Courses

		Semester Hours
PHI 144	Logic	3
PHI 300	History of Greek Philosophy	3
PHI 302	History of Modern Philosophy	3
Total		9

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 or One Philosopher 3
 One Course Relating Philosophy to another field,
 for example Religion, Art, Science, or History 3
 Total 18

Additional electives at any level 9

(Selected in consultation with and approved by the Department of
 Philosophy)

Total upper-division semester hours required for major 18

Total semester hours required for Philosophy Major 36

Minor in Philosophy

Required Courses

PHI 101 Introduction to Philosophy 3
 PHI 103 Ethics 3
 PHI 111 Language, Logic, and Persuasion 3
 Total 9

Electives

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

Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of
 Philosophy and includes the required courses listed under the
 holistic health and education multi-minor in the Degrees and
 Programs Available at MSCD section of this catalog.

Speech Communication

Speech communication is one of the most important human
 qualities. Proficiency in one of the areas of speech opens up
 many careers to the graduate.

For instance, in mass communication, radio, television, and film, a
 graduate might aspire to careers in on-air operations, mass media
 ideas, promotion, public affairs, or radio-television sales.
 Graduates might become consultants in advertising, specialists in
 instructional or educational television or in the public broadcasting
 service. Careers are open as broadcasting specialists in public
 relations, public information, business, industry, and government.

Speech pathology graduates who meet the standards of the
 American Speech and Hearing Association may find careers in
 public and private schools, community clinics, hospitals,
 rehabilitation centers, private practice, colleges and universities,
 industry, or state and federal government agencies.

Graduates in rhetoric and public address have achieved success
 in law, industrial and organizational communication, educational
 administration, public relations, speech writing for political figures,
 teaching, public relations, and theology.

Professional and educational theatre occupations are open to
 theatre graduates with specialties in stagecraft, sound,
 engineering, script writing, directing, and acting.

Communications Theory and Organizational Communication:
 Communication consulting/training as well as conference planning
 both present lucrative and satisfying careers to speech graduates
 specializing in these areas of communication. Job opportunities
 are available in education, government, business, and industry as
 well as private practice as a consultant.

Speech Communication

Major for Bachelor of Arts

1. 101-3, Fundamentals of Speech Communication, is required of all speech majors and minors.
2. Independent study, topic courses, and experiential education courses such as practicums and internships may be taken in each of the areas.
3. Additional semester hours in speech courses selected in consultation with and approved by the Department of Speech.
4. Total minimum semester hours for a major in speech communication: 36.
5. All speech majors are required to take a minimum of one class in each of the following six program areas.
6. The six subject areas include:

Theatre and Oral Interpretation

SPE 221 Introduction to Theatre 3
 SPE 222 Techniques in Acting I 3
 SPE 224 Introduction to Stagecraft 3
 SPE 320 Oral Interpretation: Prose and Poetry 3
 SPE 322 Movement for Stage 2
 SPE 325 Introduction to Scenic Design and Theatre Lighting 3
 SPE 328 Stage Directing 3
 SPE 420 Reader's Theatre 3
 SPE 426 Theatre: Practicum I 1
 SPE 427 Theatre: Practicum: II 2

Mass Communication (Radio-Television-Film)

SPE 240 Introduction to Radio and Television Broadcasting 3
 TLC 249 Internship in Radio, T.V., Film, and
 Mass Communications 6
 SPE 343 Radio-Television Announcing 3
 SPE 344 Radio-Television Production 3
 SPE 347 Evolution of Cinematics as Art 3
 SPE 348 Workshop in Radio-Television Production 3
 TLC 349 Advanced Internship in Radio, T.V., Film, and
 Mass Communications 1-15
 SPE 449 Effects of Radio-Television on Contemporary Life 3

Communication Disorders and Voice Science

SPE 330 Voice Science: Phonetics and Voice and Diction 3
 SPE 350 Speech Pathology I 3
 SPE 351 Speech Pathology II 3
 SPE 352 Language Acquisition 3
 SPE 355 Speech Pathology: Observation I 2
 SPE 356 Speech Pathology: Observation II 1
 SPE 357 Methods of Speech Pathology-Audiology: Diagnostic
 Procedures 3
 SPE 358 Methods in Speech Pathology: Articulation and Stuttering 3
 SPE 359 Speech Problems in the Schools 3
 SPE 360 Audiology I 3
 SPE 361 Audiology II 3
 SPE 450 Clinical Practice in Speech Pathology-Audiology 1-3
 SPE 455 Practicum in Speech Pathology 1
 SPE 457 Medical Aspects of Speech and Hearing Disorders 3
 SPE 463 Practicum in Audiology 1

Organizational Communication

SPE 310 Business and Professional Speaking 3
 SPE 311 Strategies of Organizational Leadership 3
 SPE 313 Conference Leadership and Parliamentary Procedure 3

Communication Theory

SPE 170 Oral Communication Theory 3
 SPE 171 Interpersonal Communication: The Individual as a
 Communicator 3
 SPE 271 Interpersonal Communication: The Dynamics of Group
 Communication 3
 SPE 272 Nonverbal Communication 3
 SPE 273 Communication and Interpersonal Conflict 3
 SPE 374 Psychology of Communication 3
 SPE 376 Cultural Influences on Communication 3
 SPE 377 Interpersonal Communications and the Family 3
 SPE 476 Communication and the Elderly 3

Rhetoric and Public Address

SPE 211	Discussion Methods	3
SPE 301	Advanced Public Speaking	3
SPE 305	Intercollegiate Forensics	1
SPE 308	Great American Speakers	3
SPE 309	Argumentation and Advocacy	3
SPE 405	Advanced Intercollegiate Forensics	2
SPE 408	Theories and Criticism of Public Address	3
SPE 409	Persuasion in the Greek and Latin Traditions	3
SPE 410	Techniques of Persuasion	3
SPE 412	Freedom of Speech	3

Speech Education

Required Courses for the Secondary Teacher Education Program in Speech Communication Arts

Required Courses	Semester Hours
SPE 101 Fundamentals of Speech Communication	3
SPE 211 Discussion Methods	3
SPE 221 Introduction to Theatre	3
SPE 222 Techniques of Acting I	3
SPE 224 Introduction to Stagecraft	3
SPE 240 Introduction to Radio and Television Broadcasting	3
SPE 301 Advanced Public Speaking	3
SPE 309 Argumentation and Advocacy	3
SPE 320 Oral Interpretation: Prose and Poetry	3
SPE 328 Stage Directing	3
SPE 330 Voice Science: Phonetics and Voice and Diction	3
SPE 359 Speech Problems in the Schools	3
SPE 374 Psychology of Communication	3
SPE 410 Techniques of Persuasion	3
Total	42

Electives for the Secondary Teacher Education Program

A minimum of six semester hours in speech courses recommended in consultation with and approved by the Department of Speech. These six hours are to be selected from the following list:

SPE 305	Intercollegiate Forensics	1
SPE 308	Great American Speakers	3
SPE 320	Oral Interpretation: Prose and Poetry	3
SPE 322	Movement for Stage	2
SPE 350	Speech Pathology I	3
SPE 360	Audiology I	3
SPE 408	Theories and Criticism of Public Address	3
SPE 420	Reader's Theatre	3
SPE 426	Theatre: Practicum I	1
SPE 449	Effects of Radio-Television on Contemporary Life	3

Total minimum hours required for the Secondary Teacher Education Program in Speech Communication Arts: 48 hours.

Students seeking secondary credentials in speech education must satisfy the teacher education program of MSCD in addition to all of the major requirements. Recent changes in Colorado law affecting teacher certification have necessitated changes in advising procedures. All students in the speech education program who are seeking a certificate must, therefore, contact the Speech Department for modifications, changes, and advising relative to changes in Colorado law affecting teachers.

Communications Multi-Major for Bachelor of Arts

Communications: Broadcasting

Sponsored by the Department of Speech

This area of emphasis is offered through the Cooperative Program for Careers in Communications (interdisciplinary). In addition to the requirements listed below, students must complete a minimum of 18 upper-division hours as well as supporting proficiencies (see an advisor).

Required Courses	Semester Hours
COM 272 Introduction to Communication Concepts and Systems	3

SPE 374	Psychology of Communication	3
or		
SPE 410	Techniques of Persuasion	3
Total		6

Required Area and Broadcasting Courses

SPE 224	Introduction to Stagecraft	3
SPE 240	Introduction to Radio and Television Broadcasting	3
TLC 249	Internship in Radio-Television-Film-Mass Communication	1-6
SPE 343	Radio-Television Announcing	3
SPE 344	Radio-Television Production	3
SPE 348	Workshop in Radio/Television Production	3
TLC 349	Advanced Internship in Radio-Television-Film-Mass Communication	1-15
Total		21

Recommended Electives

SPE 330	Voice Science: Phonetics and Voice and Diction	3
SPE 347	Evolution of Cinematics as Art	3
SPE 448	Seminar Practicum in Broadcasting	3
SPE 449	Effects of Radio-Television on Contemporary Life	3
ART 220	Beginning Photography	3
COM 244	Writing for Radio	3
COM 344	Corporate Scriptwriting for Film and Television	3
JRN 382	Public Relations Writing and Strategies	3
JRN 383	Contemporary Issues	3
MGT 300	Organizational Management	3
MKT 300	Principles of Marketing	3
	or other designated electives	
Total electives		15
Total		42

Communications: Theatre Administration

Sponsored by the Department of Speech

This area of emphasis is offered through the Cooperative Program for Careers in Communications (interdisciplinary). In addition to the requirements listed below, students must complete a minimum of 18 upper-division hours as well as supporting proficiencies (see an advisor).

Required Courses	Semester Hours
COM 272 Introduction to Communication Concepts and Systems	3
SPE 374 Psychology of Communication	3
or	
SPE 410 Techniques of Persuasion	3
Total	6

Required Area and Theatre Arts Courses

SPE 221	Introduction to Theatre	3
SPE 224	Introduction to Stagecraft	3
SPE 299	Internship	3
SPE 320	Oral Interpretation: Prose and Poetry	3
SPE 330	Voice Science: Phonetics and Voice and Diction	3
SPE 499	Advanced Internship	3
Total		18

Recommended Electives

COM 244	Writing for Radio	3
COM 344	Corporate Scriptwriting for Film and Television	3
ENG 414	Modern Continental, British, and American Drama	3
MGT 300	Organizational Management	3
SPE 322	Movement for Stage	2
SPE 420	Reader's Theatre	3
SPE 426	Theatre: Practicum I	1
SPE 427	Theatre: Practicum II	2
SPE 480	Workshop in Theatre Arts	1-3
	and/or other designated electives	
Total electives		18
Total		42

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Communications Free Electives List

Other courses approved by the advisor in the selected communications area of emphasis are acceptable as electives.

ANT	131	Introduction to Cultural Anthropology	3
ANT	233	Cross-Cultural Communication	3
ART	101	Basic Drawing Methods	3
ART	102	Basic Design and Crafts Methods	3
ART	202	Survey of Contemporary Art: 1960 to the Present	3
ART	220	Beginning Photography	3
CEN	120	Technical Drawing I	4
CEN	121	Technical Drawing II	4
ENG	251	Intermediate Composition	3
ENG	303	Semantics	3
JRN	181	Introduction to Journalism and Mass Media	3
JRN	182	Beginning Reporting and News Writing	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	286	Intermediate Reporting and News Writing	3
JRN	381	Feature Article Writing for Newspapers	3
PHI	144	Logic	3
PSC	322	Public Policy	3
PSY	241	Social Psychology	3
PSY	342	Issues in Community/Social Psychology	3
SPE	301	Advanced Public Speaking	3
SPE	322	Movement for the Stage	2
SPE	328	Stage Directing	3
SPE	310	Business and Professional Speaking	3
SPE	330	Voice Science: Phonetics and Voice and Diction	3
SPE	347	Evolution of Cinematics as Art	3
SPE	412	Freedom of Speech	3
SPE	420	Reader's Theatre	3
SPE	426	Theatre Practicum I	1
SPE	427	Theatre Practicum II	2
SPE	448	Seminar: Practicum in Broadcasting	3
SPE	449	Effects of Radio-Television on Contemporary Life	3

The Speech Communication Minor

1. The speech minor is required to take SPE 101-3.
2. All speech minors are required to take a minimum of one class in at least three of the subject areas adopted for speech majors. This requirement does not apply to students interested in teacher education.
3. Required courses should be decided upon in consultation with an advisor.

4. Additional semester hours in speech courses selected in consultation with and approved by the Department of Speech.
5. Total minimum semester hours for a minor in speech communication: 18 semester hours.

Speech Pathology-Audiology Minor

Required Courses			Semester Hours
SPE	330	Voice Science: Phonetics and Voice and Diction	3
SPE	350	Speech Pathology I	3
SPE	351	Speech Pathology II.	3
SPE	360	Audiology I	3
SPE	361	Audiology II	3
SPE	450	Clinical Practice in Speech Pathology-Audiology	1-3
SPE	463	Practicum in Audiology	1
Total			17-19

Electives

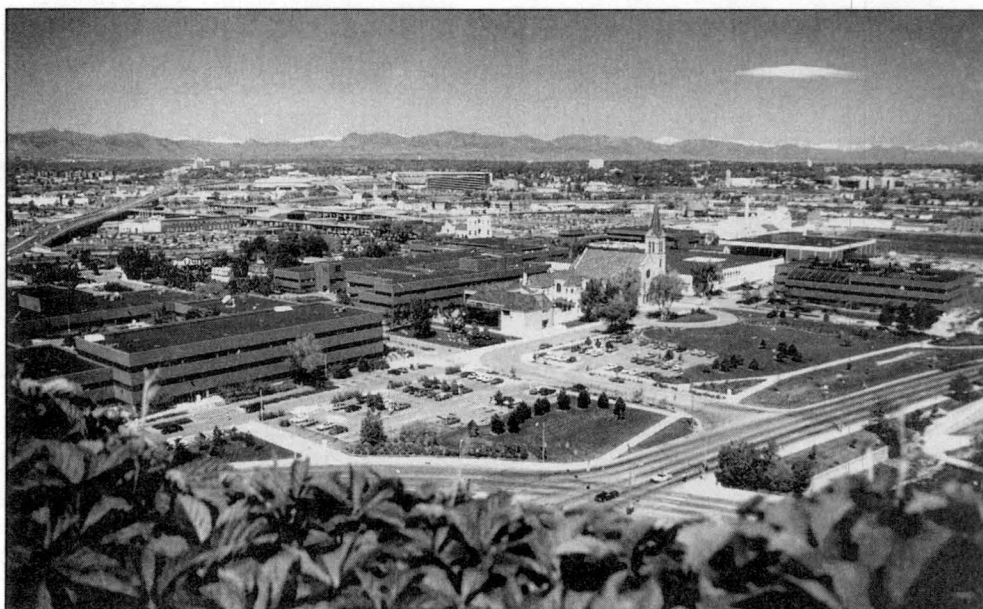
A minimum of two additional courses selected from the following list in consultation with and approved by the Department of Speech. Approved psychology courses may be substituted for electives.

SPE	352	Language Acquisition	3
SPE	359	Speech Problems in the Schools	3
SPE	374	Psychology of Communication	3
SPE	455	Practicum in Speech Pathology	1

Total minimum hours required for a minor in speech pathology-audiology: 21

Telecommunications

Telecommunications is one of the most beneficial internship programs for communication students in broadcasting. Under the auspices of the Department of Speech Communication, the student is afforded the opportunity to gain first-hand experience through 92 current internships in radio, television, and film, provided by industry, government, business, public, and commercial telecommunications centers. The student may begin this program upon the completion of six hours in broadcasting-telecommunications courses at MSCD. Students should contact the advisor in broadcasting for details relative to eligibility and placement in the telecommunications internships. Internship - telecommunications courses are offered every semester during each of the modules as well as on a full semester basis.



Division of Social Sciences

In the social sciences, students may choose bachelor's degree programs in anthropology, history, political science, psychology, sociology, social welfare, urban studies, multidisciplinary programs in behavioral science and gerontology, and an array of emphasis areas and minors. These curricula develop students' understanding of the subject area and their skills in working with individuals, groups, and large organizations. Courses range from the traditional liberal arts based curriculum to professional internships in social welfare and legislative government, to studies in popular culture and research practicums. Programs prepare students for beginning level practice in helping services and social work agencies, and graduate education in law. Graduates focus on the social and behavioral science disciplines, research in the social and behavioral sciences, work with the elderly, public administration, or secondary school teaching.

History

Major for Bachelor of Arts

Required Courses			Semester Hours
HIS	101	Western Civilization to 1715	3
HIS	102	Western Civilization since 1715	3
HIS	121	American History to 1865	3
HIS	122	American History since 1865	3
HIS	482	Senior Seminar	3
Total			15

Electives

A minimum of 23 additional semester hours in history is required, 18 hours of which must be upper division. No more than four hours in HIS 389 readings courses may be counted toward the major without prior written approval from the department.

Course Distribution

A minimum of 23 additional semester hours in history is required, 18 hours of which must be upper division. In the minimum of 23 additional semester hours required, students must include at least three hours in each of the broad areas of history: United States, European, Developing World.

Grade Average

Students majoring in history must maintain at least a 2.0 average in their history courses.

Advising

History majors should consult with a departmental advisor to select the courses in other disciplines which complement their area of concentration in the major.

Minor in History

There are four different areas of emphasis available to students seeking a history minor: (I) regular history area of emphasis, (II) American popular culture area of emphasis, (III) American West history area of emphasis, (IV) twentieth century studies history area of emphasis.

I. Regular History Area of Emphasis

Required Courses			
HIS	101	Western Civilization to 1715	3
HIS	102	Western Civilization since 1715	3
HIS	121	American History to 1865	3
HIS	122	American History since 1865	3
Total			12

Electives

A minimum of nine 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 two hours in HIS 389 readings courses may be counted toward the minor without prior written approval from the department.

II. American Popular Culture Area of Emphasis

Required Courses			
HIS	122	American History since 1865	3
HIS	151	Movies and History	3
or			

HIS	152	Rock Music and Social History	
or			
HIS	153	Sports in America	3
Total			9

Electives

A minimum of 15 additional history hours is required, of which nine must be upper division. Courses must be related to American popular culture.

III. American West History Area of Emphasis

Required Courses			
HIS	110	American West	3
HIS	111	Colorado History I	3
HIS	121	American History to 1865	3
HIS	122	American History since 1865	3
Total			12

Electives

A minimum of 9 additional history hours treating the American West is required, all of which must be upper division.

IV. Twentieth-Century Studies History Area of Emphasis

Required Courses			
HIS	122	American History since 1865	3
HIS	201	Contemporary World History	3
Total			6

Electives

A minimum of 15 additional hours treating twentieth-century history is required, of which nine must be upper-division.

Grade Average

Students minoring in history must maintain a 2.0 average in their history courses.

Secondary School Education Certification 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 certification. The requirements of this program are included under the Education Department section of this catalog.

Prelaw Courses

Several history courses are of particular importance to legal studies. These include HIS 121, HIS 122, HIS 346, and HIS 368. Students interested in prelaw courses are urged to contact the departmental 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 pre-law 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	110	Evolutionary Legal Concepts in Criminal Justice	3
HIS	368	The Court in Crisis	3
PHI	343	Philosophy of Law	3

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SOC	355	Sociology of Law	3
ENG	370	Literature and the Law	3
PSC	312	American Constitutional Law	3
xxx	xxx	Seminar in Legal Topics (Interdisciplinary - team taught course)	3

Total 21

Students will select one law-related course from the courses listed below or approved by the interdisciplinary legal studies minor advisor:

MGT	221	Legal Environment of Business I	3
MGT	322	Legal Environment of Business II	3
CJC	210	Substantive Criminal Law	3
HIS	346	The Constitution and the New Nation, 1787-1848	3
SOC	350	Criminology	3
WMS	331	Women and the Law	3

Total Hours Required for Minor 24

Political Science

The study of political science is mainly a 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.

The Department of Political Science offers prelaw advising to all students at the college, regardless of students' major fields 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 department's prelaw advisor.

The Department of Political Science provides students with the perspective and background necessary to understand the complex and often confusing reality of politics.

Students interested in majoring or minoring in political science should see a department advisor about pending changes in major and minor requirements.

Political Science Major for Bachelor of Arts

Required Courses			Semester Hours
PSC	101	American National Government	3
PSC	102	Political Systems and Ideas	3
PSC	305	Political Theory	3
PSC	402	Special Studies	3
Total			12

Electives

A minimum of 21 additional semester hours of political science must be completed. At least 12 of these 21 hours must be upper-division courses (300- and 400-level). Total semester hours required for a PSC major: 33.

Minor in Political Science

Required Courses			Semester Hours
PSC	101	American National Government	3
PSC	102	Political Systems and Ideas	3
Total			6

Electives

A minimum of 12 additional semester hours are required in political science courses. Total semester hours required for a PSC minor: 18.

In addition to the 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 or by the Political Science Department. Interested students should contact the Political Science Department for details.

Minor in Public Administration

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

I. Basic courses required for all public administration minors:

PSC	101	American National Government	3
PSC	302	Introduction to Public Administration	3

II. Two of the following courses:

PSC	322	Public Policy	3
PSC	324	Intergovernmental Relations	3
PSC	326	Politics of Budgeting	3
PSC	328	Public Personnel Administration	3
ACC	320	Governmental Accounting	3

III. One of the following courses:

CMS	201	Principles of Information Systems	3
MTH	121	Introduction to Statistics	4

IV. Internship PSC 412 or substitute course (minimum) 3

Total 19-20

A governmental internship will be required of all students for a minimum of one semester and a minimum of three semester hours. This requirement may be waived for students with at least one calendar year of administrative work experience in a government agency.

It is recommended that public administration minors also take a course in both public speaking and in technical writing.

Also available to students is a program of courses leading to a recognition of completion award in public administration presented by the Political Science Department. Students may earn the award by successfully completing a selection of courses amounting to 26 semester hours. Contact the Political Science Department for details.

Not listed among the regular courses are a variety of topics courses and self-paced courses which are offered each semester and give the student a greater variety of choice. Please be sure to check the semester class schedule for these.

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 a four-week module—during late May and early June—actually held in Washington with on-campus meetings and discussions exploring the Washington experience and relevant readings. Please contact the department about this special program.

Urban Studies Program

A bachelor of arts or a bachelor of science degree with a major in urban studies is offered. The bachelor of science degree is recommended for those students desiring a stronger background in quantitative aspects of urban studies. Coursework is jointly offered by MSCD and the University of Colorado at Denver; the major is offered at MSCD. The emphasis of this program is an interdisciplinary approach to learning. To support this approach six areas of emphasis are offered within the major.

1. local government/urban planning
2. housing patterns and alternatives
3. cultural lifestyles
4. transportation and communication
5. community service development
6. business, management, and urbanization

Urban Studies Major for Bachelor of Arts

The requirements total 46 semester hours and include:

1. 5-27 hours of core courses
2. Nine hours selected from each of four areas of process
3. Two hours in an area of emphasis to be selected by the student.
4. Six additional hours for a bachelor of science degree
5. Urban studies majors who do not wish to pursue a minor in some other discipline will be required to take at least 14 semester hours for a total of 60 semester hours. The 14 semester hours must be selected in consultation with a faculty advisor.
6. There are different requirements for the community service development, business, management, and urbanization emphases.

Required Courses	Semester Hours
URS 100 Introduction to Urban Studies	3
URS 200 An Inside Look at Urban Institutions	3
URS 300 World Patterns of Urbanization	3
URS 380 Applied Urban Research Methods	3
URS 489 Interdisciplinary Seminar	4
URS 499* Internship in Urban Studies	3
Advanced writing course which may be taken from community service development, English or communications	*3-4
Statistics, which may be taken from economics, geography, mathematics, psychology, or sociology	*3-4
Total	25-27

*Community service development students may elect to fulfill these requirements within the community service development area of emphasis.

A total of 9 hours should be selected from the following areas of process. Community service development students will take one course from two areas for a total of at least six hours. Substitutions for these courses should be arranged through an Urban Studies advisor.

Urban Spatial Structuring Processes

URS 310 Internal Structure of the City	3
URS 351 Community Development and Planning	3
URS 400 Urban Simulation/Game	4
GEG 204 Geography of Denver	3
GEG 360 Urban Geography	3
GEG 461 Urban and Regional Planning	3

Urban Political Processes

URS 210 An Analysis of Urban Boundaries	3
URS 350 Emerging Urban Political Systems	3
URS 400 Urban Simulation/Game	4
PSC 300 American State and Local Government	3
PSC 302 Introduction to Public Administration	3
SOC 371 Politics and Power	3

Urban Economic Processes

ECO 201 Principles of Economics - Macro	3
ECO 202 Principles of Economics - Micro	3
ECO 330 State and Local Finance	3
ECO 335 Urban Economic Analysis	3
ECO 340 Transportation Economics	3
ECO 345 Environmental Economics	3
SOC 324 Poverty in America	3

Urban Social Processes

GEG 132 Geographic Analysis of Current Social Issues	3
GEG 362 Land Use and Population	3
GEG 462 Land Use: Residential	3
SOC 309 Urban Sociology	3
SOC 324 Poverty in America	3
Total	9

Areas of Emphasis

In each of the first four following areas of emphasis, the student will select a minimum of 12 hours with a minimum of six in urban studies. The student may take any combination of interdisciplinary courses related to the area of emphasis to be selected in consultation with an advisor. One of the courses should be a skills course related to the area of emphasis.

Local Government — Urban Planning

This area of emphasis concentrates on the basic conceptual and theoretical planning processes as they relate to and actually appear in urban government occupations and professions. The area of emphasis is designed for students seeking entry into government occupations or seeking advanced study in public administration or urban planning beyond the bachelor's degree.

URS 250 New Front Range Communities	3
URS 289 Urban Problems: Topics	1-3
URS 351 Community Development and Planning	3
URS 389 Readings in Urban Studies	1-3
URS 400 Urban Simulation/Game	1-4
URS 410 Urban Environmental Perception	3
URS 450 Cities of the Future	3
URS 451 Community Involvement Methods	3
URS 471 The Urban Elderly: Prisoners of Space	3

Housing Patterns and Alternatives

This area of emphasis will concentrate on the assembly and development of residential land, the nature of public and private programs to provide housing and the maintenance and rebuilding of neighborhoods. A broad range of topics will include the evolution of public intervention in housing and residential renewal, the conflict between physical and human criteria in housing decisions, and constraints on the public's ability to deal with housing issues. Completion of this area of emphasis provides a foundation for graduate work and/or employment with a wide range of public and private housing agencies.

URS 171 Introduction to Denver Neighborhoods	3
URS 230 Introduction to Urban Housing Problems	3
URS 250 New Front Range Communities	3
URS 289 Urban Problems: Topics	1-3
URS 330 Housing: Issues and Policies	3
URS 389 Readings in Urban Studies	1-3
URS 400 Urban Simulation/Game	1-4
URS 450 Cities of the Future	3
MGT 300 Organizational Management	3
FIN 380 Real Estate Practice and Law	3

Cultural Lifestyles

This area of emphasis concentrates on the impacts on the urban landscape of the lifestyles of various cultures be they ethnic, racial, chronological, religious, economic, or gender. The consequences of these impacts are viewed as among the most significant determinants of urban structure, form, function, and social interaction. The student is provided with specialized training and experience for entry into professions with public or private agencies which deal directly with these groups within a pluralistic urban environment.

URS 250 New Front Range Communities	3
URS 371 Ethnic Groups in U.S. Cities	3
URS 389 Readings in Urban Studies	1-3
URS 400 Urban Simulation/Game	1-4
URS 410 Urban Environmental Perception	3
URS 471 The Urban Elderly: Prisoners of Space	3

Transportation and Communication

The transportation-communication area of emphasis has three basic academic foci: (1) to aid students in refining their perceptions of the various networks that exist in the urban setting; (2) to provide tools and techniques to analyze these networks; and (3) to increase the students' understanding that transportation and communication are interdependent with such factors as land

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factors as land use, politics, and demography. Completion of this area of emphasis provides a foundation for a professional career or further graduate training.

URS	228	Introduction to Transportation Systems	3
URS	289	Urban Problems: Topics	1-3
URS	328	Transportation: Issues and Policies	3
URS	389	Readings in Urban Studies	1-3
URS	400	Urban Simulation/Game	1-4
URS	450	Cities of the Future	3

Community Service Development

This area of emphasis combines classroom theory and practical experience in a comprehensive format. Students' formal classroom experiences are supplemented by at least 20 hours per week during two semesters in placement experiences. All field work will be carefully supervised and student progress will be measured against learning objectives cooperatively developed for each course by the student, agency supervisor, and the college coordinator or faculty member.

This area of emphasis is designed to provide an educational program for a very specific administrative level in nonprofit agencies and organizations. The directive skills include development and management of volunteer programs, fund-raising, proposal writing, program and human resource development.

Course Requirements Include:

1.	URS	Required Core Courses	16
2.		Selected Electives	7
3.	CSD	Area of Emphasis	28
CSD	200	Introduction to Community Service Development	1
CSD	201	Principles of Community Service Development	4
CSD	300	Applied Development and Seminar I	2
CSD	321	Conflict Resolution and Decision-Making	2
CSD	341	Development and Use of Inexpensive Media	3
CSD	361	Financial Accountability of Non-Profit Programs	3
CSD	401	Assessment and Evaluation of Non-Profit Programs and Projects	3
CSD	402	Fundraising and Proposal Writing for Community Services	4
CSD	431	Development and Administration of Volunteer Programs	3
CSD	451	Politics of Agency Survival	3
Total			51

Business, Management, and Urbanization

This area of emphasis will stress the interrelationships between the private business sector and the public policy and urban life designers and decision-makers. Public sector/private sector/policy makers' cooperation, or the lack thereof, in the future, will have a direct effect on urban lifestyle. Issues to be addressed or focused upon in this emphasis are: the roles of business and urban government in the overall process of urbanization; the functions of managing business and managing government; the importance of sales tax revenues to both business and government and, with less governmental employment in the future, the changes that are in store for small and medium sized businesses. This area of emphasis is expressly directed toward the student seeking an undergraduate major in management or administration of government organizations at the local, state or federal level, or in management positions in private industry.

Course Requirements Include:

1.	URS	Required Core Courses	25-27
2.		Business, Management, Urbanization Emphasis	21
MGT	xxx	(Any MSCD introduction to business course)	3
MGT	250	Small Business Management	3
MGT	300	Organizational Management	3
MKT	300	Principles of Marketing	3
FIN	300	Financial Markets and Institutions	3

Six Hours to be Selected From:

ECO	350	Managerial Economics	3
MGT	453	Organizational Behavior	3
MKT	301	Marketing Research	3
MKT	311	Advertising	3
MKT	330	Marketing of Services	3
MKT	331	Consumer Behavior	3
ACC	308	Small Business Taxation	3

Major for Bachelor of Science Urban Studies

The requirements for the major in urban studies leading to the bachelor of science degree includes six semester hours in addition to the bachelor of arts degree. The six hours must be taken from the following list of courses.

CMS	201	Principles of Information Systems	3
CMS	214	Fundamentals of Programming - Assembler	3
CMS	223	Word Processing	3
CMS	312	BASIC Programming and Graphics for Computers	3
PSY	311	Introduction to Statistics for Social and Behavioral Sciences	3
PSY	312	Inferential Statistics	3
MTH	131	Finite Mathematics for the Management and Social Sciences	4

Urban Studies Minor

Minors for both the bachelor of science degree and the bachelor of arts degree are available. The minor can be designed to provide the student with course experiences which are most relevant to her or his occupational and educational goals.

Students, in consultation with the department offering related courses and the students' urban studies faculty advisor, will develop individual minors which will reflect the best possible elective curriculum, and will insure that an urban emphasis is maintained.

Required Courses

URS	100	Introduction to Urban Studies	3
URS	200	An Inside Look at Urban Institutions	3
COM	261	Introduction to Technical Writing	3
Subtotal			21

Elective Courses

Twelve additional semester hours are required to complete the minor. The elective courses are to be selected in consultation with a URS faculty advisor.

Total semester hours required for the minor 21

Psychology

The major or minor program is to be planned in consultation with an advisor from the Psychology Department by the beginning of the junior year or upon transfer into the department.

Major for Bachelor of Arts

Required Courses

			Semester Hours
PSY	101	Introductory Psychology	3
PSY	311	Introduction to Statistics for Social and Behavioral Sciences	3
PSY	312	Inferential Statistics	3
PSY	331	Research Techniques, Experimental I	3
PSY	332	Research Techniques, Experimental II	3
PSY	451	History and Systems of Psychology	3
Total			18

Electives

A minimum of 21 additional semester hours in psychology courses selected in consultation with and approved by a Department of Psychology advisor, making a total of 39 hours in psychology.

The field of psychology includes a number of possible areas for future specialization. The department recommends that students sample from among all of these areas: experimental, clinical, social and personality, industrial, developmental, gerontology, and human factors.

Students considering advanced degrees should be aware that graduate programs often have specific undergraduate course prerequisites. Many graduate schools require a mix of courses such as social psychology, developmental or child psychology, abnormal psychology, industrial psychology, learning, physiological psychology, and sensation and perception. Additional required or recommended courses, depending on the graduate program, include theories of personality, cooperative education in psychology, teaching of psychology, and advanced statistics. Therefore, students should consult with a Psychology Department advisor to choose appropriate psychology electives.

Students interested in the gerontology area of emphasis must select a minimum of 42 hours (see list under sociology gerontology area of emphasis) in addition to the 18 hours of required courses for the psychology major. This must be done in consultation with and approved by a Department of Psychology advisor. The gerontology emphasis may be applied in lieu of the 21 elective hours in the psychology major and the minor requirement.

Students desiring secondary certification in social studies should see the Department of Teacher Education.

Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of Psychology and includes the required courses listed under the holistic health and wellness education multi-minor in the Degrees and Programs Available at MSCD section of this catalog.

Minor in Psychology

Required Courses		Semester Hours
PSY 101	Introductory Psychology	3
PSY 451	History and Systems of Psychology	3
<i>Total</i>		<u>6</u>

Electives

A minimum of 15 additional semester hours in psychology courses selected in consultation with and approved by a Department of Psychology advisor is required, making a total of 21 hours in psychology.

Sociology

The study of sociology emphasizes understanding people in groups — small groups like the family, the all-pervasive bureaucratic organizations of American society, political parties, football crowds, groups in conflict, society as a whole. It includes the study, from a variety of theoretical models, of past and present societies and social processes, and the analysis, using modern research methods, of contemporary social issues.

The sociology program offers to its majors and minors, and to students from all academic disciplines, courses that focus on important issues and trends in today's complex societies.

Sociology Major for Bachelor of Arts

Required Courses		Semester Hours
SOC 101	Introduction to Sociology	3
SOC 201	Current Social Issues	3
SOC 332	Sociological Theory: Past and Present	3
SOC 360	Research in the Social Sciences	3
SOC 460	Advanced Research in the Social Sciences	3
<i>Total</i>		<u>15</u>

Electives

A minimum of 21 additional semester hours in sociology courses is required, constituting a total of 36 semester hours. At least 12 upper-division semester hours in sociology must be completed at Metropolitan State College of Denver by students majoring in the field.

Optional Areas of Concentration in Sociology

Each area of concentration includes a number of courses designed to give the student an in-depth exploration of the knowledge, challenges, issues, and research in a specific subdiscipline of sociology.

I. The Urban Community

This concentration is particularly recommended for those interested in urban studies and all students whose career plans are aimed toward management, planning, or administration in the urban setting.

SOC 322	Race, Sex, and Ethnic Groups	3
SOC 355	Sociology of Law	3
SOC 373	Mass Media and Social Behavior	3
SOC 381	Population Issues	3

II. Social Deviance

This concentration is particularly recommended for criminal justice, human services, prelaw, and psychology majors and all students whose career goals involve working in prevention, treatment, and/or rehabilitation programs.

SOC 201	Current Social Issues	3
SOC 250	Deviant Behavior in Society	3
SOC 350	Criminology	3
SOC 351	Juvenile Delinquency	3
SOC 355	Sociology of Law	3
SOC 383	Mental Disorders	3

III. The Family and Alternative Life-Styles

This concentration is particularly recommended for teacher education, human services, and psychology majors and all students who plan people-serving careers.

SOC 240	The Chicano Family	3
SOC 310	Death and Dying	3
SOC 340	Childhood and Adolescent Socialization	3
SOC 341	The Family in Transition	3
SOC 342	Education in a Changing Society	3
SOC 343	Sociology of Sex Roles	3
SOC 344	The Black Family	3
SOC 346	Sociology of Sexuality	3
SOC 351	Juvenile Delinquency	3

IV. Medicine and Health

This concentration is particularly recommended for health care management, nursing, pre-med, and psychology majors.

SOC 104	Introduction to Gerontology	3
SOC 304	Contemporary Issues in Gerontology	3
SOC 310	Death and Dying	3
SOC 380	Health and Healers	3
SOC 381	Population Issues	3
SOC 383	Mental Disorders	3

V. Social Class and Stratification

This concentration focuses on the various ways in which societies are divided. It is recommended for all students wishing to gain further understanding of conflict and inequality in groups and societies and to explore possible solutions to these problems.

SOC 201	Current Social Issues	3
SOC 320	Social Classes in America	3
SOC 322	Race, Sex and Ethnic Groups	3
SOC 324	Poverty in America	3
SOC 343	Sociology of Sex Roles	3

VI. Changing Social Institutions

This concentration offers a broad overview of the dominant institutions in society, those institutions that provide the framework for our work, family life, and general social interaction.

SOC 320	Social Classes in America	3
SOC 341	The Family in Transition	3

School of Letters, Arts, and Sciences

SOC	342	Education in a Changing Society	3
SOC	346	Sociology of Sexuality	3
SOC	355	Sociology of Law	3
SOC	371	Politics and Power	3
SOC	380	Health and Healers	3
SOC	391	Religious Movements in America	3
SOC	430	Social Change	3

Introduction to Statistics for Social and Behavioral Sciences (PSY 311) is strongly recommended for sociology majors who plan to go on for graduate study and/or have career goals involving research. (This course will not be used as a sociology elective.)

Sociology majors are also urged to include field experience in their college plans, either through enrolling in SOC 470 or through a cooperative education placement.

Students desiring secondary certification in social studies should see the Department of Teacher Education.

Gerontology Area of Emphasis

Gerontology deals with the causes and consequences—biological, psychological, and social—of aging. Drawing from many fields of academic study, this area of emphasis prepares the student for professional and para-professional careers in human services for the aged population.

To complete the gerontology area of emphasis, a student selects, (in addition to the 15 hours of required courses in the sociology major), in consultation with and approved by the Department of Sociology/Anthropology, a minimum of 45 hours from the following list of courses. The gerontology area of emphasis may be applied in lieu of the 21 elective hours in the sociology major and the minor requirement.

			Semester Hours
SOC	104	Introduction to Gerontology	3
SOC	204	Aging in American Society	3
SOC	304	Contemporary Issues in Gerontology	3
SOC	309	Urban Sociology	3
SOC	310	Death and Dying	3
SOC	324	Poverty in America	3
SOC	341	The Family in Transition	3
SOC	380	Health and Healers	3
SOC	381	Population Issues	3
SOC	383	Mental Disorders	3
SOC	470	Advanced Field Internship	3
PSY	216	Personality and Adjustment	3
PSY	221	Psychology of Human Development	3
PSY	295	Contemporary Issues in Psychology: Death and Dying	3
PSY	327	Adulthood and Aging	3
PSY	398	Cooperative Education: Psychology	3
PSY	493	Seminar in Developmental Psychology: Senescence	3
HES	105	Dynamics of Health	3
HES	204	Introduction to Nutrition	3
Total			45

Minor in Sociology

Required Courses

SOC	101	Introduction to Sociology	3
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Electives

A minimum of 15 additional semester hours in sociology courses, selected in consultation with a department advisor is required, bringing the total to 18 semester hours. At least 6 upper-division semester hours of the minor must be completed at Metropolitan State College of Denver.

It is suggested that students consider focusing their elective choices in one of the areas of concentration in sociology.

Anthropology

Anthropology is the exploration of human diversity. The combination of cultural, archaeological, and biological perspectives offers 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.

Anthropology Major for Bachelor of Arts

Required Courses

			Semester Hours
ANT	101	Physical Anthropology and Prehistory	3
ANT	131	Introduction to Cultural Anthropology	3
ANT	210	Human Evolution	3
ANT	233	Cross-Cultural Communication	3
ANT	264	Archaeology	3
Total			15

Electives

A minimum of 21 additional semester hours in anthropology is required, bringing the total to 36 semester hours. At least 12 upper-division semester hours in anthropology must be completed at Metropolitan State College of Denver by students majoring in the field.

Students desiring teacher certification in social studies should see the Department of Teacher Education.

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

ANT	101	Physical Anthropology and Prehistory	3
ANT	131	Introduction to Cultural Anthropology	3
Total			6

Electives

A minimum of 15 additional semester hours in anthropology is required, bringing the total to 21 semester hours. At least 6 upper-division semester hours must be completed at Metropolitan State College of Denver.

Behavioral Science

Major for Bachelor of Arts

This is a distributed major, offering students a structured overview of the social and behavioral sciences, emphasizing breadth of coverage rather than in-depth studies. Particularly applicable for students interested in certification in the elementary and secondary education areas.

			Semester Hours
ANT	131	Introduction to Cultural Anthropology	3
ECO	201	Principles of Economics: Macro	3
HIS	366	Recent U.S., 1945 to the 1970s	3
PSC	102	Political Systems and Ideas	3
PSY	101	Introductory Psychology	3
SOC	101	Introduction to Sociology	3
Total			18

Electives

A minimum of 18 additional upper-division elective hours in anthropology, economics, history, political science, psychology, and sociology is required, bringing the total to 36 semester hours. No more than six upper-division hours may be applied from any one discipline and must be selected in consultation with, and have the approval of, the advisor. At least 12 upper-division hours must be completed at Metropolitan State College of Denver by students majoring in this field. Each student in this major must have the preliminary approval of an assigned advisor.

Students desiring teacher certification in social studies should see the Department of Teacher Education.

No Minor Offered

Social Welfare

Major for Bachelor of Science

The Social Welfare Program offers preparation for beginning professional practice in social services, corrections, and social work agencies. Students are also encouraged to pursue graduate degrees such as the M.S.W. and the Ph.D., or D.S.W.

The basic objectives of the program are to enable students to enter beginning level social work practice, achieve effective active participation in community affairs based upon an understanding of complex social welfare programs, and to encourage graduate study.

The curriculum reflects these objectives in its required courses which focus upon field experience; methods of helping individuals, families, small groups, organizations, and communities; human growth and development; human diversity; social policy analysis and research. Particular emphasis is placed upon understanding and coping with bureaucratic processes and structures.

The field of social welfare includes the following specialty areas: child welfare, family social work, correctional services, social services (public assistance agencies), medical and mental health, developmental disabilities, aging, private practice, industrial social work, and others.

Students who major in social welfare are not required to complete a minor. Students desiring a contract minor in social welfare should consult a social welfare faculty advisor.

Required Courses

	Semester	Hours
SWF 101	Introduction to Social Welfare Services	3
SWF 104	Human Behavior and the Social Environment	4

SWF 105	Family Social Services	4
SWF 201	Social Welfare Services and Populations at Risk	3
SWF 202	Social Welfare Services and Women	3
SWF 241	Practicum in Social Welfare Services	6
SWF 378	Social Welfare Policy	3
SWF 379	Research in Social Welfare	3
SWF 401	Practice in Social Welfare Services	4
SWF 441	Cross-Cultural Social Welfare Services	4
SWF 479	Professional Internship	6
Total		43
Electives in social welfare		10

Credits to be selected from the following:

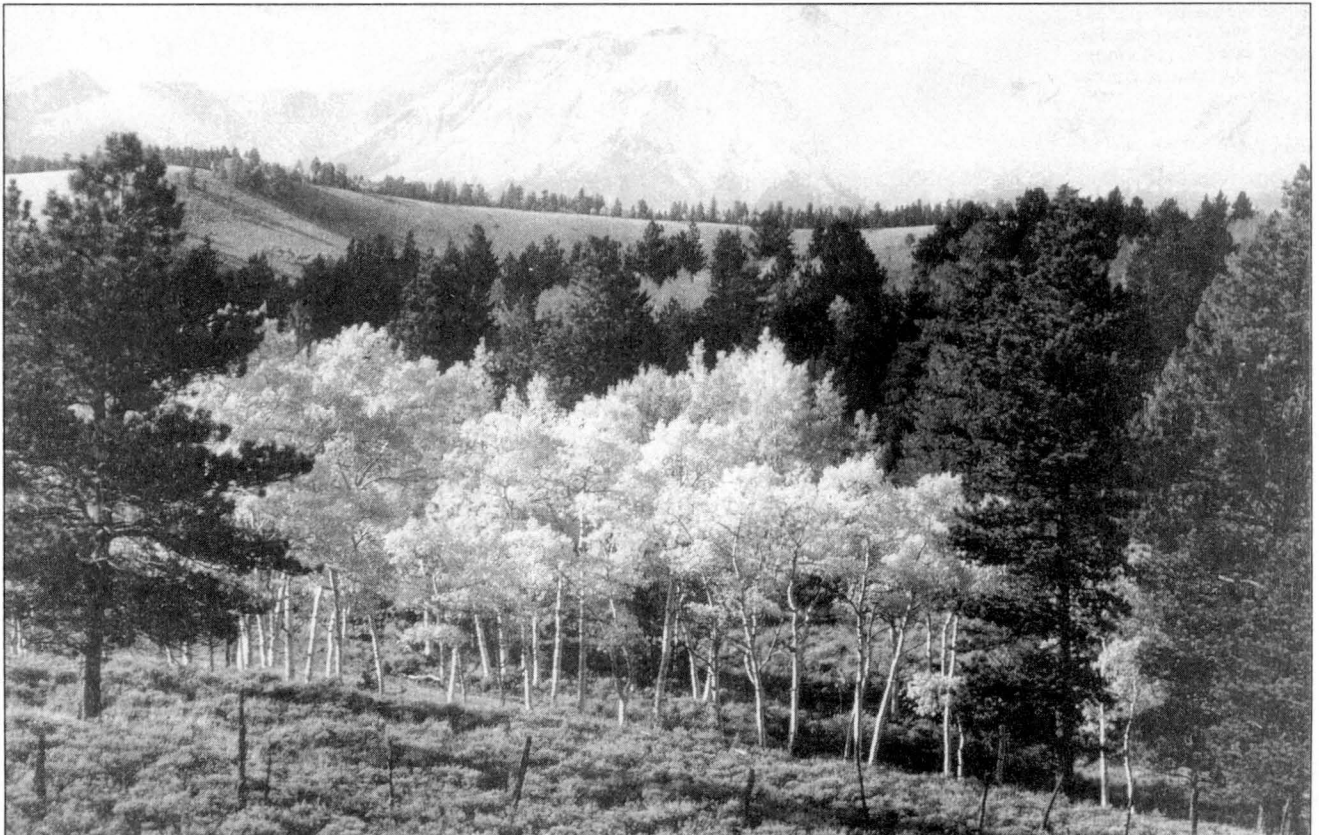
SWF 301	Social Welfare Services for Children and Adolescents	4
SWF 302	Case Management in Social Welfare Services	4
SWF 303	Social Services for Adults and Aging	4
SWF 480	Workshop (Variable Topics)	2-4
SWF 490	Seminar (Variable Topics)	2-4
Total		53

Case Management Program

The Social Welfare Program and the Human Services Department have developed a joint program in case management and developmental disabilities. The purpose of the program is to train individuals interested in performing the functions of a case manager. Required courses are listed under the Department of Human Services. For further information call 556-3167, or 556-4679.

Contract Minor Available

For additional information call 556-4679 or 556-3167.



Division of Science and Mathematics

Science and mathematics programs are offered in the departments of Biology, Chemistry, Earth and Atmospheric Sciences, Mathematical Sciences, and Physics. Curricula are flexible, including interdisciplinary, career-oriented bachelor's degree programs both in the traditional areas of science and mathematics and in more career-oriented areas such as training for health related fields, land use, applied mathematics, computer science, statistics, air pollution monitoring, or occupational health and safety. In cooperation with local colleges, universities, and health agencies, students may complete a bachelor of science or bachelor of arts degree from Metropolitan State College of Denver and earn certification in medical technology. The Department of Chemistry offers a minor in criminalistics, one of the few such programs in the country.

Biology

The Department of Biology offers two majors, the bachelor of science in biology and the bachelor of arts in biology. While it is not necessary to declare an emphasis within these majors, a student may choose to emphasize botany, microbiology or zoology. Supportive courses associated with paramedical studies, criminalistics and the Drug and Alcohol Institute, as well as general courses for enrichment of the nonscience student's background, are offered by the department.

Students seeking secondary certification in science should see the Department of Teacher Education.

A biology minor is offered to students with related majors or a special interest in the field.

Biology Major for Bachelor of Science

Required Courses	Semester Hours
BIO 108 General Introduction to Biology	4
BIO 360 General Genetics	3
Select 2 of the following:	
BIO 210 General Botany	5
BIO 220 General Zoology	5
BIO 240 General Microbiology	4
Select 1 of the following:	
BIO 355 Urban Ecology	4
BIO 454 Plant Ecology	4
BIO 455 Animal Ecology	4
<i>Subtotal</i>	20-21

Electives

Biology courses selected from the 200, 300, and 400 series, and approved by faculty advisors in the Department of Biology, must be completed to bring the total of biology courses approved for the major to 40 semester hours. At least 14 of these elective semester hours must be from the 300 and 400 courses of the Department of Biology.

Total Hours Required in Biology 40

Required Non-Biology Courses

One year of college general chemistry, one semester of upper-division organic chemistry, one semester of upper-division biochemistry, and one year of mathematics starting with MTH 111 are requisites for the biology major.

Biology Major for Bachelor of Arts

Required Courses	Semester Hours
BIO 108 General Introduction to Biology	4
BIO 360 General Genetics	3
Select 2 of the following:	
BIO 210 General Botany	5
BIO 220 General Zoology	5
BIO 240 General Microbiology	4
Select 1 of the following:	
BIO 355 Urban Ecology	4
BIO 454 Plant Ecology	4
BIO 455 Animal Ecology	4
<i>Subtotal</i>	20-21

Electives

Biology courses selected from the 200, 300, and 400 series, and approved by faculty advisors in the Department of Biology, must be completed to bring the total of biology courses approved for the major to 40 semester hours. At least 14 of these elective semester hours must be from the 300 and 400 courses of the Department of Biology.

Total Hours Required in Biology 40

Required Non-Biology Courses

One year of General Chemistry (equivalent to the present courses CHE 110 and CHE 210).

Botany Area of Emphasis

Requirements for either a bachelor of arts or a bachelor of science degree in biology must be satisfied, and the 40 hours of biology courses must include BIO 210, General Botany; BIO 454, Plant Ecology; and 15 semester semester hours from the following botany electives:*

Elective Courses	Semester Hours
BIO 314 Plant Physiology	5
BIO 315 Plant Hormones	2
BIO 316 Plant Anatomy and Morphology	4
BIO 318 Vascular Plant Taxonomy	4
BIO 412 Algology	4
BIO 416 Mycology	4
BIO 456 Field Methods in Plant Ecology	2
BIO 485 Evolution	3
<i>Subtotal</i>	15

Microbiology Area of Emphasis

Students must satisfy the requirements listed for the bachelor of science major in biology, including BIO 240, General Microbiology. Students must also take BIO 335, Immunology; BIO 340, Bacteriology; BIO 445, Pathogenic Microbiology; and BIO 447, Microbial Genetics. Additional hours from the courses listed below or appropriate omnibus courses as selected by the student and approved by the microbiology faculty must be taken to complete the 20 hours of upper-division courses and a total of 40 semester hours in biology.*

Elective Courses	Semester Hours
BIO 305 Cell and Molecular Biology	4
BIO 327 Parasitology	4
BIO 412 Algology	4
BIO 416 Mycology	4
BIO 422 Protozoology	3
BIO 444 Virology	4
<i>Subtotal</i>	20

Required Non-Biology Courses

The student must satisfy the requirements listed for non-biology courses for the bachelor of science major including one course in biostatistics or calculus and a computer science course to fulfill the required one year of college mathematics. In addition, the student must complete CHE 300 and 301, Analytical Chemistry with laboratory; CHE 432, Biochemistry II; and one year of college physics.

Zoology Area of Emphasis

Students must satisfy the requirements for the bachelor of science degree in biology and must include in the 40 semester hours of biology courses BIO 220, General Zoology; BIO 455, Animal Ecology; and 15 semester hours from the following list of zoology electives:*

Elective Courses		Semester Hours
BIO 321	Histology	4
BIO 322	Comparative Vertebrate Anatomy	5
BIO 325	Arthropod Zoology	4
BIO 327	Parasitology	4
BIO 334	Endocrinology	3
BIO 336	Animal Physiology	4
BIO 422	Protozoology	3
BIO 425	Entomology	4
BIO 427	Herpetology	3
BIO 428	Ornithology	4
BIO 429	Mammalogy	3
BIO 481	Vertebrate Embryology	4
Subtotal		15

*BIO 301, Microtechnique, and BIO 305, Cell and Molecular Biology, are both applicable to the fields of botany, microbiology, and zoology and are recommended as additional electives for all three areas of emphasis.

Minor in Biology

Required Courses		Semester Hours
BIO 108	General Introduction to Biology	4
BIO 210	General Botany	5
Select 2 of the following:		
BIO 220	General Zoology	5
BIO 240	General Microbiology	4
BIO 231, 232	Human Anatomy and Human Physiology I and II	8
Select 1 of the following:		
BIO 355	Urban Ecology	4
BIO 360	General Genetics	3
BIO 454	Plant Ecology	4
BIO 455	Animal Ecology	4
Subtotal		16-21

Electives

Biology courses from the 200, 300, and 400 series, approved by the Department of Biology, must be completed to bring the total of biology courses approved for the minor to 24 semester hours.

Total Hours Required in Biology 24

Senior Experience for Biology Majors

A student majoring in biology may fulfill the Senior Experience requirement with any course approved for the purpose by the General Studies Committee. Any biology course approved by the General Studies Committee and the Department of Biology for Senior Experience credit may be counted toward the Senior Experience requirement of General Studies, or toward a biology major/biology minor, but not both.

Medical Technology Program

See chair of Biology Department for details.

Chemistry

The Department of Chemistry is approved by the American Chemical Society and offers several degree programs: the bachelor of science in chemistry; bachelor of science in chemistry - occupational health and safety area of emphasis; bachelor of science in chemistry - criminalistics area of emphasis; 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. 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 certification.

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.

Students electing the chemistry major with the occupational health and safety emphasis will be trained in the recognition, evaluation, and control of hazards in the workplace. This area of emphasis includes courses equivalent to those required for the bachelor of arts major in chemistry as well as supporting science and mathematics courses and courses in instrumental analysis, toxicology, safety, and occupational health and safety. A mandatory internship during the junior or senior year provides valuable practical experience. Graduates of this program are prepared for immediate employment in the field of occupational health and safety or the field of chemistry. Graduates in this emphasis area also meet the requirements for admissions to medical school, dental school, veterinary school, or graduate school in industrial hygiene or chemistry.

For further information about the occupational health and safety or criminalistics programs, students should contact the Chemistry Department. Students seeking secondary education certification in science should consult the MSCD Teacher Education Department for requirements.

The following courses constitute the basic core and are required in all chemistry degree programs except for the minor in chemistry.

Basic Chemistry Core		Semester Hours
CHE 120	General Chemistry I	5
CHE 121	General Chemistry II	5
CHE 300	Analytical Chemistry	3
CHE 301	Analytical Chemistry Lab	2
CHE 310	Organic Chemistry I	4
CHE 311*	Organic Chemistry II	3
CHE 312	Organic Chemistry Lab I	2
CHE 313*	Organic Chemistry Lab II	2
Total Hours in Basic Core		26

Chemistry Major for Bachelor of Science

Required Courses		Semester Hours
Basic Chemistry Core		26
Additional Required Chemistry Courses:		
CHE 325	Physical Chemistry I	4
CHE 326	Physical Chemistry II	4
CHE 328	Physical Chemistry Lab I	2
CHE 329	Physical Chemistry Lab II	2
Subtotal		12

Electives

A minimum of 10 semester hours in chemistry courses selected in consultation with and approved by the Department of Chemistry is required.

School of Letters, Arts, and Sciences

American Chemical Society Approval

To meet American Chemical Society degree criteria the following courses must be completed:

CHE 230	Intermediate Inorganic Chemistry	3
CHE 340	Chemical Literature Search	1
CHE 410	Instrumental Analysis	3
CHE 411	Instrumental Analysis Lab	2
CHE 430	Advanced Inorganic Chemistry	3
<i>Subtotal</i>		<u>12</u>

Electives

An additional 6 credit hours of advanced level electives are required. Electives should be selected in consultation with the Department of Chemistry. The following courses may be appropriate: CHE 401, CHE 402, and CHE 432.

Total hours required 66

Chemistry Major for Bachelor of Arts

Required Courses	Semester Hours
Basic Chemistry Core	26

Additional Required Chemistry Courses:

CHE 319	Survey of Physical Chemistry	4
CHE 320	Survey of Physical Chemistry Lab	1

Electives

A minimum of six semester hours in chemistry courses selected in consultation with and approved by the Department of Chemistry is required.

Total Hours Required 37

Occupational Health and Safety Area of Emphasis

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 Chemistry Core	26

Additional Required Chemistry Courses:

CHE 319	Survey of Physical Chemistry	4
CHE 320	Survey of Physical Chemistry Lab	1
CHE 410	Instrumental Analysis	3
CHE 411	Instrumental Analysis Laboratory	2
CHE 431	Biochemistry I	5

Required Occupational Health and Safety Courses:

CHE 250	Introduction to Occupational Health and Safety	3
CHE 350	Occupational Safety	3
CHE 415	Instrumentation and Analysis in the Occupational Environment	4
CHE 420	Evaluation and Control of Air Quality	3
CHE 425	Principles of Occupational Health and Safety	3
CHE 450	Occupational Toxicology	3
CHE 475	Occupational Health and Safety Internship	8

Required Ancillary Courses:

BIO 108	General Introduction to Biology	4
BIO 232	Human Anatomy and Physiology II	4
BIO 240	General Microbiology	4
MTH 121	Introduction to Statistics	3
MTH 141	Calculus I	4
PHY 201	College Physics I	4
PHY 203	College Physics Laboratory I	1

Total Hours Required 92

Electives

The following courses are recommended as electives:

SPE 101	Fundamentals of Speech Communication	3
COM 261	Introduction to Technical Writing	3

ECO 201	Principles of Economics-Macro	3
MGT 461	Labor/Employee Relations	3

Criminalistics Area of Emphasis

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 Chemistry Core	26

Additional Required Chemistry Courses:

CHE 319	Survey of Physical Chemistry	4
CHE 320	Survey of Physical Chemistry Lab	1
CHE 410	Instrumental Analysis	3
CHE 411	Instrumental Analysis Laboratory	2
CHE 431	Biochemistry I	5

Required Criminalistics Courses:

CHE 370	Criminalistics I	3
CHE 371	Criminalistics II	3
CHE 470	Criminalistics Internship I	7
CHE 471	Criminalistics Internship II	7

Required Criminal Justice Courses:

CJC 101	Introduction to the Criminal Justice System	3
CJC 210	Substantive Criminal Law	3
CJC 212	Evidence and Courtroom Procedures	3
CJC 312	Constitutional Law	3

Required Ancillary Courses:

BIO 108	General Introduction to Biology	4
BIO 240	General Microbiology	4
BIO 360	General Genetics	3
MTH 121	Introduction to Statistics	4
MTH 141	Calculus I	4
PHY 201	College Physics I	4
and		
PHY 203	College Physics Lab I	1
or		
PHY 231	General Physics I	4
and		
PHY 232	General Physics Lab I	1
<i>Total Hours Required</i>		<u>97-98</u>

Minor in Chemistry

Students completing the basic chemistry core (26 hours) qualify for a minor in chemistry. Students may elect to substitute five semester hours in upper-division chemistry courses for CHE 311* and CHE 313*.

Required Courses	Semester Hours
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CHE 120	General Chemistry I	5
CHE 121	General Chemistry II	5
CHE 300	Analytical Chemistry	3
CHE 301	Analytical Chemistry Lab	2
CHE 310	Organic Chemistry I	4
CHE 311*	Organic Chemistry II	3
CHE 312	Organic Chemistry Lab I	2
CHE 313*	Organic Chemistry Lab II	2

Total Hours in Basic Core 26

Minor in Criminalistics

Required Courses	Semester Hours
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CHE 110	Principles of Chemistry	5
CHE 270	Introduction to Criminalistics	4
CHE 275	Arson and Explosives	3
CHE 276	Field Testing and Laboratory Analysis of Drugs	1
CHE 370	Criminalistics I	3
CHE 371	Criminalistics II	3
CJC 212	Evidence and Courtroom Procedures	3

Total Hours Required 22

Earth and Atmospheric Sciences

The Earth and Atmospheric Sciences Department is comprised of three separate disciplines: geography, geology, and meteorology. The department offers a bachelor of science degree in meteorology and a bachelor of arts or bachelor of science degree in land use. The bachelor of science degree is recommended for those students desiring a stronger background in the physical and quantitative aspects of the environment.

Minor programs are available in geography, geology, and meteorology. Students working toward teacher certification in either science or social studies may take courses in geology, geography, or meteorology. Students interested in Environmental Science or Earth Space Science may develop a contract major through Adult Learning Services.

Land Use

The Land Use program is very broad in scope and can be utilized for a number of career objectives and graduate school programs. Opportunities exist in such areas as planning, cartography, geographic information systems (GIS), air photo and satellite imagery interpretation, environmental and resource management, travel and transportation, mining and mineral resources, residential and industrial development, recreational land use, population analysis, and a variety of other interrelated fields. This program provides a solid foundation for continued study at the graduate level.

Land Use Major for Bachelor of Arts

Required Core		Semester Hours
MTH 121	Introduction to Statistics	4
GEG 100	World Regional Geography	3
or		
GEG 130	Introduction to Human Geography	3
GEG 110	Introduction to Physical Geography	3
or		
GEL 101	General Geology	4
GEG 122	Map Use	2
GEG 225	Introduction to Geographic Information Systems	3
or		
GEG 321	Introduction to Cartography	4
GEG 361	Principles of Land Use	3
GEG 495	Internship in Land Use	2
or		
GEL 495	Internship in Geology	2
Senior Capstone Course for General Studies		
GEG 496	Global Environmental Challenges	3
or		
GEL 496	Environmental Field Studies	3
Total		23-25

Required Areas of Emphasis

Each student shall select **one** of the following areas of emphasis. Within the area of emphasis the student will complete a set of required courses plus electives for a total of 42 hours for the major. Electives should be selected to provide an integrated and well-planned pattern of courses related to the student's educational and career goals.

Required Core		Semester Hours
Urban Land Use (12 Hours Required)		
GEG 336	Geography of Economic Activity	3
GEG 360	Urban Geography	3
GEG 461	Urban and Regional Planning	3
URS 450	Cities of the Future	3
Minimum of 7 Hours of Electives		
GEG 204	Geography of Denver	3
GEG 230	Geographic Analysis of Social Issues	3
GEG 300	Historical Geography of the U.S.	3
GEG 362	Population, Resources, and Land Use	3

GEG 363	Transportation Planning and Land Use	3
GEG 462	Land Use: Residential	3
GEG 464	Land Use: Recreation	3
GEG 471	Legal Aspects of Land Use	3
BIO 355	Urban Ecology	4
ECO 335	Urban Economic Analysis	3
ECO 430	Public Finance	3
	Urban Studies	3

Subtotal 19

Geographic Information Systems (15 Hours Required)

GEG 225	Introduction to GIS	3
or		
GEG 321	Cartography	4
(Whichever course was not taken as part of the core)		
GEG 322	Intermediate Cartography	3
GEG 325	Computer Cartography	3
GEG 485	Advanced Geographic Information Systems	3
CSI 101	Introduction to Computer Science	3

Minimum of 6 Hours of Electives

GEG 360	Urban Geography	3
GEG 362	Population, Resources, and Land Use	3
GEG 461	Urban and Regional Planning	3
GEG 471	Legal Aspects of Land Use	3
GEG 484	Remote Sensing	3
GEG 490	GIS Database Management	2
CSI 102	Basic Programming	2
CSI 451	Computer Graphics	3
SUR 151	Surveying I	4
SUR 265	Photogrammetry I	3
SUR 366	Land Information Systems	3
	Applied Statistics	3

Subtotal 21

Environment and Resources (12 Hours Required)

GEG 120	Introduction to Environmental Science	3
GEG 140	World Resources	3
GEG 484	Remote Sensing	3
ECO 345	Environmental Economics	3

Minimum of 7 Hours of Electives

GEG 123	Weather and Climate	3
GEG 124	Landforms	3
GEG 336	Geography of Economic Activity	3
GEG 340	Water Resources	3
GEG 362	Population, Resources, and Land Use	3
GEG 464	Recreational Land Use Planning	3
GEL 115	Oceanography	3
GEL 342	Soil Resources	4
GEL 344	Energy and Mineral Resources	4
GEL 400	Environmental Geology	3
GEL 401	Environmental Hazards and Planning	3
BIO 355	Urban Ecology	4
ECO 435	Regional Economics	3
MTR 140	Introduction to Meteorology	3
PSC 323	Environmental Politics	3
	Applied Statistics	
	Biology or Chemistry	
	OSHA Safety Training	

Subtotal 19

Geology (15 Hours Required)

(NOTE: students selecting this area of emphasis will be required to minor in geology)

GEL 312	Advanced Geomorphology	4
GEL 342	Soil Resources	4
GEL 344	Energy and Mineral Resources	4
GEL 400	Environmental Geology	3

Minimum of 5 Hours of Electives

GEL 115	Oceanography	3
GEL 315	Hydrogeology	4
GEL 401	Environmental Hazards and Planning	3
GEG 120	Introduction to Environmental Science	3
GEG 123	Weather and Climate	3
GEG 124	Landforms	3
GEG 340	Water Resources	3
GEG 484	Remote Sensing	3
BIO 355	Urban Ecology	4

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ECO 345	Environmental Economics	3
	Advanced MTH or CSI	
	Biology, Chemistry, Meteorology, or Physics	
Subtotal		20
Total Hours Required for the Major		43

Required Minor

Except for the geologic area of emphasis, the field of study selected as a minor is at the option of the student.

Land Use Major for Bachelor of Science

To fulfill the requirements for the bachelor of science with a major in land use, a student must complete the requirements as listed above under the bachelor of arts; however, the student must minor in one of the sciences, or science-oriented fields as approved by the Earth and Atmospheric Sciences Department.

Minor in Geology

Required Core		Semester Hours
GEL 101	General Geology	4
Any 100 level GEL course		3-4
GEL 201	Rocks and Minerals	4
GEL 202	The Stratigraphy and Structure of the Earth	4
Any 300 or 400 level GEL courses		8
Total Hours Required		23-24

Minor in Geography

Required Core		Semester Hours
GEG 112	Orientteering	1
GEG 122	Map Use	2
GEG 130	Introduction to Human Geography	3
GEG 123	Weather and Climate	3
OR		
MTR 140	Introduction to Meteorology	3

Structured Electives

A minimum of 13 additional hours must be selected in consultation with a departmental advisor. At least one course must be selected from each of the following groups to satisfy this requirement.

Physical (3)

GEG 110	Introduction to Physical Geography	3
GEG 124	Landforms	3
GEL 101	General Geology	4
GEL 212	Geomorphology of the U.S.	3

Resources and Environment (3)

GEG 120	Introduction to Environmental Science	3
GEG 140	World Resources	3
GEG 340	Water Resources	3
GEL 342	Soil Resources	4
GEL 344	Energy and Mineral Resources	4

Spatial Analysis and Planning (3)

GEG 360	Urban Geography	3
GEG 361	Principles of Land Use	3
GEG 362	Population, Resources, and Land Use	3
GEG 363	Transportation Planning and Land Use	3
GEG 462	Land Use: Residential Urban Studies	3

Regional Geography (3)

GEG 100	World Regional Geography	3
GEG 202	Geography of Colorado	3
GEG 210	Geography of Latin America	2
GEG 220	Geography of the United States	3
GEG 300	Historical Geography of the United States	3

Plus one additional hour of field study in either geography or geology for a total of 22 hours.

Total Hours Required for the Minor		22
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Meteorology

Meteorology is the science of the atmosphere. Modern meteorologists are involved in weather observing, forecasting,

research, and dissemination of weather information to the public. Meteorologists also study global weather and climate, and investigate the influence that human beings exert on the Earth's climate. MSCD's forecasting lab includes a computerized observing station, daily weather maps, satellite images, and access to the national weather database. The bachelor of science degree in meteorology follows American Meteorological Society recommendations for undergraduate programs. Students should contact a meteorology faculty to discuss degree programs, career opportunities, and graduate school options.

Meteorology Major for Bachelor of Science

Required Courses		Semester Hours
MTR 140	Introduction to Meteorology	3
MTR 142	Introduction to Meteorology Lab	1
MTR 241	Meteorological Instrumentation	3
MTR 340	Synoptic Meteorology I	4
MTR 341	Synoptic Meteorology II	4
MTR 343	Dynamic Meteorology I	3
MTR 344	Physical Meteorology	3
MTR 345	Dynamic Meteorology II	3
MTR 441	Numerical Weather Prediction	3
MTR 442	Industrial Meteorology	3
MTR 444	Climatology	3
Elective meteorology courses		7
Subtotal		40

Additional Course Requirements*

ENG 101	Freshman Composition: The Essay	3
ENG 102	Freshman Composition: Analysis, Research, and Documentation	3
MTH 121	Introduction to Statistics	4
MTH 141	Calculus I	4
MTH 151	Computer Programming: FORTRAN	4
MTH 241	Calculus II	4
PHY 231, 232	General Physics I and Lab	5
PHY 233, 234	General Physics II and Lab	5
CHE 120	General Chemistry I	5
Level I Communications		3
Level II Arts and Letters		6
Level II Historical		3
Level II Social Science		6
Level III Senior Experience		3
Subtotal		58
Approved Electives		10
Total		126

*Students must consult a faculty advisor regarding general studies requirements.

Minor in Meteorology

Required Courses		Semester Hours
MTR 140	Introduction to Meteorology	3
MTR 142	Introduction to Meteorology Lab	1
MTR 340	Synoptic Meteorology I	4
MTR 341	Synoptic Meteorology II	4
Approved electives		8
Total		20

Mathematical Sciences

The Department of Mathematical Sciences offers bachelor of arts and bachelor of science degrees in mathematics and a bachelor of science degree in computer science. A minor program in mathematics is also offered which complements such majors as engineering technology, the physical sciences, and business. A minor in computer science is also offered to complement the mathematics major as well as majors in the sciences, technologies, and business.

The department provides courses in several emphasis areas encompassing a variety of significant mathematical ideas. Thus,

for those primarily interested in the use of mathematics in the study of some aspect of the physical or human world, courses that stress the classical and current development and applications in analysis, computer science, statistics and probability, business and economics, technical mathematics, and operations research are available.

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 potentials.

The degree program in computer science adheres to nationally recognized standards and provides students with a more technical alternative to the emphasis in computer science. Please contact the director of computer science in the Mathematics Department for more information about this program.

Major in Mathematics for Bachelor of Arts or Bachelor of Science

The Department of Mathematical Sciences offers coursework leading to the bachelor of arts or bachelor of science degree. The student may choose either degree consistent with her or his career objectives.

All majors in mathematics are required to complete a minimum of 36 hours consisting of the following basic core of courses (with a required minimum grade of "C" in each of these core courses) and *electives*:

			Semester Hours
Basic Core			
MTH	141	Calculus I	4
MTH	241	Calculus II	4
MTH	242	Calculus III	4
MTH	310	Introduction to Mathematical Proofs	3
Total			15

Electives

The student must complete a coherent program of mathematics courses, including 19 upper-division hours, to be planned in consultation with the student's advisor and approved by the department. This program must be formulated before the last 10 credit hours of mathematics are taken. The only courses applicable to the major as electives are MTH 151, 214, and any upper-division course.

The student may choose to complete one of five emphases previously approved by the department. These emphases are: applied mathematics, computer science, mathematics, secondary education, and statistics and probability, as outlined below:

Applied Mathematics Emphasis

The emphasis 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.

			Semester Hours
Required Courses			
Basic Core			15
MTH	151	Computer Programming: FORTRAN	4
MTH	321	Probability and Statistics	4
MTH	342	Differential Equations	4
MTH	344	Partial Differential Equations	3
MTH	448	Numerical Analysis I	3
MTH	449	Numerical Analysis II	3
MTH	459	Applied Mathematics Senior Seminar	1

A minimum of 3 hours chosen from the following courses:

MTH	314	Linear Algebra	4
MTH	322	Design of Experiments	4
MTH	325	Optimization Techniques I	4
MTH	347	Applied Combinatorial Mathematics	3
MTH	421	Probability Theory	4
MTH	445	Complex Variables	3
Total Hours Required			41

Computer Science Emphasis

This emphasis studies the fundamental concepts of computer science as well as processes of analyzing, designing, implementing, and testing computer software systems. The computer science emphasis is designed to prepare individuals to enter this field.

The computer science offerings undergo frequent revision and development. Such changes may necessitate special arrangements to accommodate students already in progress. Students are directed to consult advisors in the department for information concerning any changes.

			Semester Hours
Required Courses			
Basic Core (CSI 310 replaces MTH 310)			16
CSI	130	Introduction to Structured Programming	4
CSI	230	Advanced Programming and Data Structures	4
CSI	240	Computer Organization and Assembly Language	4
CSI	312	Organization and Structure of Operating Systems	4
CSI	321	Principles of Programming Languages	4
CSI	330	Foundations of File Structures	4
CSI	421	Software Development and Engineering	4
or			
CSI	430	Advanced Data Structures and Algorithm Analysis	4
CSI	459	Senior Seminar	1
MTH	214	Matrix Algebra*	2
MTH	321	Probability and Statistics	4
Total Hours Required			51

*MTH 314 may be substituted for MTH 214.

Mathematics Emphasis

The emphasis in mathematics prepares the student for further specialized study at the graduate level as well as being adaptable for preparation for positions in business, industry, and government.

			Semester Hours
Required Courses			
Basic Core			15
MTH	311	Abstract Algebra I	3
MTH	411	Abstract Algebra II	3
MTH	441	Advanced Calculus I	3
MTH	442	Advanced Calculus II	3

A minimum of 9 hours chosen from MTH 151, MTH 214, or any upper-division mathematics courses			9
Total Hours Required			36

Secondary Education Emphasis

The emphasis in secondary education is for the preparation of classroom teachers of mathematics for secondary schools. Students seeking secondary credentials in mathematics must satisfy the Teacher Education Program of MSCD in addition to all of the mathematics major requirements.

			Semester Hours
Required Courses			
Basic Core			15
CSI	130	Introduction to Structured Programming	4
MTH	311	Abstract Algebra I	3
MTH	321	Probability and Statistics	4
MTH	360	History of Mathematics	3
MTH	361	Methods of Teaching Mathematics	3
MTH	365	Foundations of Geometry	3

At least one course must be chosen from MTH 161 or any upper division Mathematics courses			1-4
Minimum Total Hours Required			36

Statistics and Probability Emphasis

The emphasis in statistics and probability stresses the application of the principles and methods of statistics and probability in the biological, physical, and social sciences and engineering. This emphasis also prepares the student for graduate study.

			Semester Hours
Required Courses			
Basic Core			15
MTH	151	Computer Programming: FORTRAN	4

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MTH 214	Matrix Algebra*	2
MTH 321	Probability and Statistics	4
MTH 322	Design of Experiments	4
MTH 325	Optimization Techniques I	4
MTH 421	Probability Theory	4
MTH 422	Stochastic Processes	4
MTH 429	Senior Statistics Project	1
Total Hours Required		42

*MTH 314 may be substituted for MTH 214.

Minor in Mathematics

Basic Core		Semester Hours
MTH 141	Calculus I	4
MTH 151	Computer Programming: FORTRAN	4
or		
CSI 130	Introduction to Structured Programming	4
MTH 241	Calculus II	4

Electives

A minimum of 10 hours at least 7 of which must be at the upper division level. These 10 hours may include MTH 242, any upper division mathematics course, or any course approved by the Department of Mathematical Sciences.

Department of Mathematical Sciences	10
Total Minimum Hours Required	22

Computer Science Major for Bachelor of Science

The department offers a complete degree program in computer science which adheres to the nationally recognized standards set by the computing sciences Accreditation Board. Students are encouraged to contact the departmental director of computer science for further details. No minor is required in the CSI program.

Required Courses		Semester Hours
CSI 130	Introduction to Structured Programming	4
CSI 230	Advanced Programming and Data Structures	4
CSI 240	Computer Organization and Assembly Language	4
CSI 310	Discrete Mathematics	4
CSI 312	Organization and Structure of Operating Systems	4
CSI 321	Principles of Programming Languages	4
CSI 330	Foundations of File Structures	4
CSI 421	Software Development and Engineering	4
CSI 430	Advanced Data Structures and Algorithm Analysis	4
CSI 459	Senior Seminar	1
Total		37

Required Ancillary Courses

COM 261	Introduction to Technical Writing	3
EET 231	Digital Logic and Telecommunications	4
CSI/CMS Approved Upper Division Electives		3*
Total		10

*A minimum of three hours is required.

Required Mathematics Courses

MTH 141	Calculus I	4
MTH 241	Calculus II	4
MTH 321	Probability and Statistics	4

Minimum of 7 hours chosen from the following:

MTH 214	Matrix Algebra	2
MTH 242	Calculus III	4
MTH 314	Linear Algebra	4
MTH 325	Optimization Techniques	4
MTH 342	Differential Equations	4
MTH 448	Numerical Analysis	3
Total		19

Required Laboratory Science Courses

Any 10-hour sequence chosen from the following:

PHY 231-234	General Physics and General Physics Lab I-II	10
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CHE 120-121	General Chemistry I-II	10
EET 110-113	Circuits and Circuits Lab I-II	10
Total		10
Subtotal		76
General studies and free electives		44
Total Hours Required for Major		120

Minor in Computer Science

Required Courses		Semester Hours
CSI 130	Introduction to Structured Programming	4
CSI 230	Advanced Programming and Data Structures	4

Electives

A minimum of 12 semester hours chosen from CSI 240 and upper division CSI courses.

CSI courses	12
Total Hours Required	20

Physics

The Department of Physics offers coursework leading to a bachelor of science and to a bachelor of arts degree. Minors in physics and theoretical physics are also offered. Undergraduates preparing for work in industry or for graduate study should take the bachelor of science in physics. Students preparing to teach secondary school physics should take the bachelor of arts in physics in addition to satisfying the requirements for certification in science. See Department of Teacher Education for details.

The Physics Program is offered jointly by the faculties of MSCD and the University of Colorado at Denver and MSCD students will receive instruction from the faculty of both institutions.

The Department of Physics also offers courses in astronomy which are designed primarily as general interest courses.

Physics Major for Bachelor of Arts

Required Courses		Semester Hours
PHY 231	General Physics I	4
PHY 233	General Physics II	4
PHY 232	General Physics Laboratory I	1
PHY 234	General Physics Laboratory II	1
PHY 281	Modern Physics	3
PHY 282	Classical Physics	3
PHY 321	Analytical Mechanics	4
PHY 381	Quantum Mechanics	3

Required Option (Select A or B)

Option A:

PHY 371	Physics Laboratory I	2
PHY 472	Advanced Physics Laboratory II	2
PHY 492	Physics Senior Seminar	1

Option B:

PHY 461	Computational Physics I	2
PHY 462	Computational Physics II	2
PHY 492	Physics Senior Seminar	1

Electives

A minimum of 10 additional semester hours of upper-division physics courses selected in consultation with and approved by the Department of Physics.

Upper-division physics courses	10
Total Hours Required	38

A one-year sequence of PHY 201-202-203-204 may be substituted for the PHY 231-233-232-234 requirements with the consent of the Department of Physics.

The student is urged to take one year of general chemistry and one year of electronics. These courses should be chosen in consultation with the student's advisor in the Department of Physics.

Physics Major for Bachelor of Science

Required Courses		Semester Hours
PHY 231	General Physics I	4
PHY 233	General Physics II	4
PHY 232	General Physics Laboratory I	1
PHY 234	General Physics Laboratory II	1
PHY 281	Modern Physics	3
PHY 282	Classical Physics	3
PHY 321	Analytical Mechanics	4
PHY 333	Electricity and Magnetism	4
PHY 341	Thermal Physics	3
PHY 371	Physics Laboratory I	2
PHY 381	Quantum Mechanics	3
PHY 481	Atomic and Molecular Structure	3

Required Option (Select A or B)**Option A:**

PHY 471	Advanced Physics Laboratory I	2
PHY 472	Advanced Physics Laboratory II	2
PHY 492	Physics Senior Seminar	1

Option B:

PHY 461	Computational Physics I	2
PHY 462	Computational Physics II	2
PHY 492	Physics Senior Seminar	1

Electives

A minimum of 8 additional semester hours in upper-division physics courses must be selected in consultation with and approved by the Department of Physics 8
Total Hours Required. 48

A one-year sequence of PHY 201-202-203-204 may be substituted for the PHY 231-233-232-234 requirements with the consent of the Department of Physics.

The student is urged to take one year of general chemistry and one year of electronics. These courses should be chosen in consultation with the student's advisor in the Department of Physics.

Minor in Physics

Required Courses		Semester Hours
PHY 231	General Physics I	4
PHY 233	General Physics II	4
PHY 232	General Physics Laboratory I	1
PHY 234	General Physics Laboratory II	1
PHY 281	Modern Physics	3
PHY 282	Classical Physics	3

A minimum of 8 additional semester hours in upper-division physics courses must be selected in consultation with and approved by the Department of Physics 8
Total Hours Required. 24

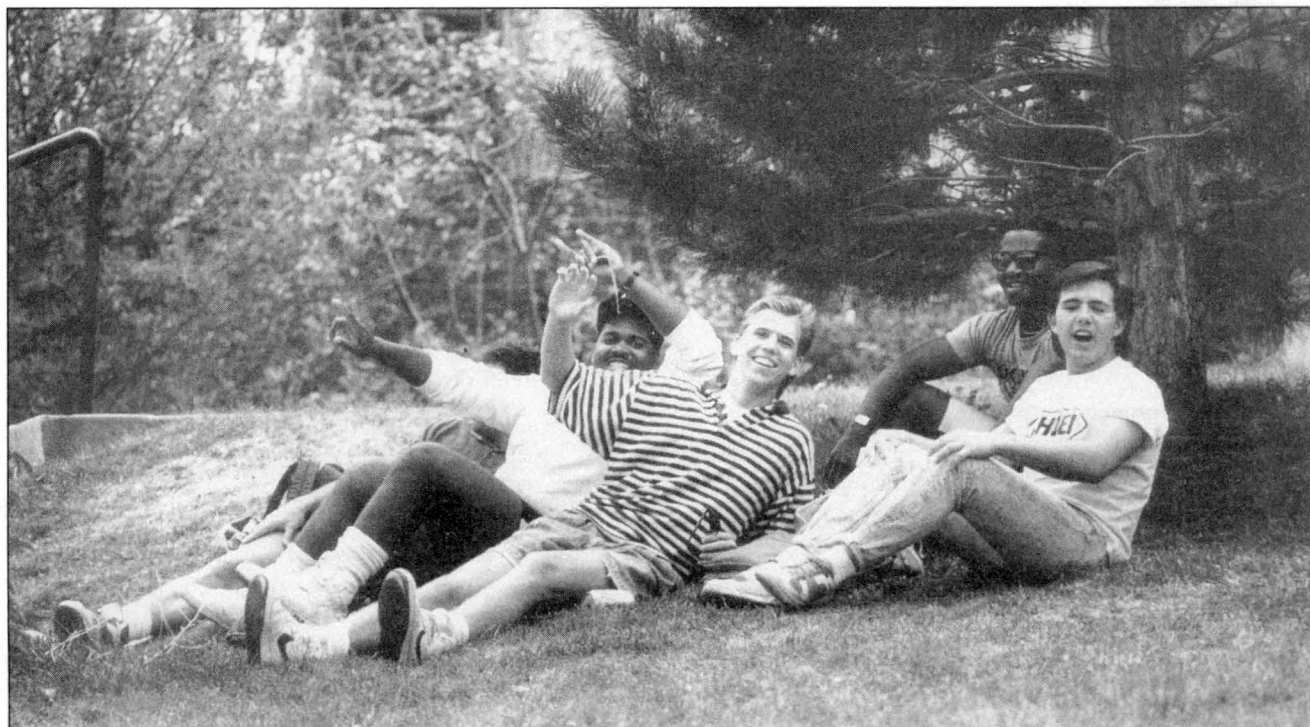
A one-year sequence of PHY 201-202-203-204 may be substituted for the PHY 231-233-232-234 requirements with the consent of the Department of Physics.

Minor in Theoretical Physics

Students entering this program are expected to have facility in using ordinary differential equations, vector calculus, and linear algebra. These skills are normally acquired in MTH 242, MTH 314, and MTH 342 or in PHY 311 and PHY 312.

With the consent of the Department of Physics, students with strong backgrounds in physics may elect not to complete PHY 231 and PHY 233 and may substitute eight semester credit hours of approved physics electives.

Required Courses		Semester Hours
PHY 231	General Physics I	4
PHY 233	General Physics II	4
PHY 321	Analytical Mechanics	4
PHY 333	Electricity and Magnetism	4
PHY 341	Thermal Physics	3
PHY 461	Computational Physics I	2
PHY 463	Continuum Physics	3
Total Hours Required.		24



Institute for Intercultural Studies and Services

The Institute for Intercultural Studies and Services takes an interdisciplinary approach to the study of culture, offering a major and a minor in African American studies and Chicano studies. The institute provides the student with academic skills leading to better understanding of social interaction and provides services at the local, national, and international level. Through the institute, students study with faculty from diverse academic backgrounds and may travel and study in Spain, Africa, and Mexico.

African American Studies

The Institute for Intercultural Studies and Services 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 U.S.; black culture and lifestyles; the black community; political activity and potential; religious development and importance; community service and resource assistance; and prognosis and potential for social change. The courses may apply in the general studies requirements and as electives for graduation.

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

The major in African American studies (which leads to a bachelor of arts degree) and the minor program must be planned in consultation with an advisor in the AAS Program.

Students desiring secondary certification in social studies should see the Department of Teacher Education.

African American Studies Major for Bachelor of Arts

Required Courses	Semester Hours
AAS 101 Introduction to African American Studies	3
AAS 113 Survey of African History	3
AAS 200 Social Movements and the Black Experience	3
AAS 330 The Black Community	3
AAS 370 Psychology of Racism and Group Prejudice (PSY 370)	3
AAS 485 Research Seminar in African American Studies	3
From the following select one:	
MUS 201 Topics in Ethnic Music: Variable Title	3
ART 304 African Art	3
AAS 324 African American Literature (ENG 324)	3
Electives	18
Total Hours Required	39

Electives

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

Minor in African American Studies

Required Courses	Semester Hours
AAS 101 Introduction to African American Studies	3
AAS 200 Social Movements & the Black Experience	3
Total	6

Electives

A minimum of 15 additional semester hours is required in African American courses, three hours of which must be an African course, selected in consultation with and approved by the African American studies advisor assigned the student. Total hours for the minor are 21.

Chicano Studies

The Institute for Intercultural Studies and Services offers a bachelor of arts degree in Chicano studies. The Chicano and other Hispanic historical experiences are used as points of departure toward expanding awareness of the multicultural world and the contributions of Chicanos. The program is designed to assist in the preparation of scholars as well as human service providers.

Chicano Studies Major for Bachelor of Arts

The requirements include core courses in the major, basic knowledge of Spanish language, plus approved electives.

Required Core Courses	Semester Hours
CHS 100 Introduction to Chicano Studies	3
CHS 101 History of Meso-America: Pre-Columbian and Colonial Periods (HIS 191)	3
CHS 102 History of the Chicano in the Southwest: Mexican and U.S. Periods (HIS 192)	3
CHS 200 Living Culture and Language of the Mexican and Chicano (ANT 236)	3
CHS 201 Survey of Chicano Literature (ENG 241)	3
Subtotal	15
Language Requirements:	
SPA 101 Elementary Spanish I	5
SPA 102 Elementary Spanish II	5
SPA 211 Intermediate Spanish	
or	
SPA 212 Spanish Reading & Conversation	3
Subtotal	13
Approved Electives	12
Total Hours Required for Major	40

A minimum of 12 semester hours of electives in Chicano studies selected in consultation with the institute director is required.

Minor in Chicano Studies

The minor can be designed to provide the student with course experiences which are most relevant to occupational and educational goals. Students, in consultation with a faculty advisor in Chicano studies, will develop individual minors which reflect the best possible elective curricula and which will insure that a relevant emphasis is maintained. Total hours for the minor are 21.

Required Courses	Semester Hours
CHS 100 Introduction to Chicano Studies	3
CHS 101 History of Meso-America: Pre-Columbian and Colonial Periods	3
CHS 102 History of the Chicano in the Southwest: Mexican and U.S. Periods	3
CHS 200 Living Culture and Language of the Mexican and Chicano	3
CHS 201 Survey of Chicano Literature	3
Total	15

Electives

A minimum of six semester hours of electives are required to complete the minor. The courses are to be selected in consultation with a Chicano studies faculty advisor.

Institute for Women's Studies and Services

Institute for Women's Studies and Services

In 1985, the Women's Resource Center and the Department of Women's Studies merged to form the Institute for Women's Studies and Services. The goals of the institute are:

1. To offer academic course work in women's studies, including a minor and a contract major.
2. To foster the inclusion of material across the curriculum on women, people of color, and ethnic minorities
3. To provide services for women students, including advising, information and referral, support groups, workshops, conferences, and seminars.
4. To identify and encourage faculty, administrative, and professional mentors for women students.
5. To facilitate collaborative interdisciplinary research.
6. To engage in cooperative ventures with women's organizations in education, business, government, and the community.

A Western States Project on Women in the Curriculum grant was awarded to the institute in 1985. The purpose of the grant was to incorporate the new scholarship concerning women into the college curriculum. Additional grants further this objective. In cooperation with the Colorado Council on the Future of Women in the Workplace, and the Alliance of Professional Women, the institute offers women students opportunities to interact with and learn from professional women in education, business, and government. The institute conducts the Denver Area Teaching and Research Colloquium on Women, bringing together faculty and graduate students from six metropolitan Denver institutions to share results of curriculum development and feminist scholarship.

Women's Studies

Contract Major

Through the Office of Adult Learning Services, students may construct an individualized interdisciplinary major combining work in women's studies with work in other disciplines. Students should consult the director of the institute and the director of adult learning services to initiate planning. The women's studies contract major is appropriate for every student particularly those who plan to work specifically with female populations. Faculty strongly recommend a cooperative education internship.

A women's studies degree can be combined effectively with majors in management, organizational development, psychology, history, English, education, 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 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. Alumnae are also employed in banking and as executives in professional associations. Students who plan to work in higher education, law, or medicine may find a women's studies degree a useful base for graduate or professional study.

Minor

Also interdisciplinary, the women's studies minor uses faculty expertise from many different departments. Faculty strongly recommend a cooperative education internship. The objectives of both the contract major and the minor include: heightened awareness for women themselves; review of the cultural patterns which define women; the study of the historical achievements of women in all disciplines; and the 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, and international women.

The courses are 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 which focuses on women. They may find from such study a conceptual framework that will enable them to better understand, appreciate, and work with women.

		Semester Hours
Required Courses		
WMS 101	Introduction: Woman in Transition	3
WMS 165	Women in U.S. History	3
WMS 331	Women and the Law	3
WMS 351	Feminist Theory	3
WMS 475	Senior Seminar	3
Total		15

Electives:

In addition to the core courses, nine semester hours of electives acceptable to or taught through women's studies are required, bringing the total number of semester hours credit 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.

Additional Study

Women's studies core courses are supplemented each semester by topics, current issues, and cluster courses (WMS 342, 344, 345, 346, 367, and 425); in addition, students should check the *Class Schedule* for other relevant offerings. Appropriate electives are often listed in other departments and may be cross-listed with women's studies. For example, students may take WMS 331, Women and the Law for either women's studies credit or for credit in Criminal Justice and Criminology (CJC 371). Students may also take WMS 165, Women in U.S. History for either women's studies credit or for credit in history (HIS 165). Similar offerings are available in humanities, fine arts, and social and behavioral sciences. Additional courses in other departments are cross-referenced for the student's information. While these may not have women's studies course numbers (instead they will have course numbers in other departments), they may, with permission of the women's studies faculty, count toward elective credits for the contract major or minor. An example is PSY 295, The Psychology of Sex Roles. Also included are certain courses in communications (COM), history (HIS), and mathematics (MTH). Students should check the *Class Schedule* each semester for appropriate cross-listed and cross-referenced courses.

Women's Services

The goal of the services component of the Institute for Women's Studies and Services is to assist women with a successful, positive college experience. A variety of assistance is available in the form of support groups, seminars, workshops, financial aid information, and employment listings. There is also a small library which houses materials of interest to women and men who wish to learn about women's contributions and about issues that have a special effect on women's lives.

Women's Services works closely with other departments in the college, and with the University of Colorado at Denver and Community College of Denver in order to provide immediate and appropriate referrals to on- and off-campus agencies. Women and men who need assistance or are concerned about women's issues should make an appointment with the coordinator of women's services.

School of Professional Studies

The School of Professional Studies offers many and varied degree and teaching certification programs. Every program is designed not only to prepare graduates for success in a specific career, but to provide a broad educational background for career and life enhancement.

The major purpose of the school is to provide students with the knowledge, skills, and performance competencies needed to successfully enter a chosen profession. The School of Professional Studies includes three divisions, twelve departments, and other administrative units.

The Division of Education consists of two academic departments: teacher education and reading. The division also includes a parent/child development center, an educational resource center, Denver Public Schools/Metropolitan State College of Denver laboratory schools, and the Office of Student Teaching.

The two academic departments in the Division of Education offer teacher certification programs in early childhood, elementary education, and 12 secondary education fields.

The Division of Technology consists of four departments: aerospace science, civil engineering and environmental technology, electronics engineering technology, and technology and technical communications. The four academic departments offer nine major and ten minor degree programs.

The Division of Public Service Professions consists of six departments: criminal justice and criminology; hospitality, meeting, and travel administration; human services; military science; nursing and health care management; human performance, sport and leisure studies; the Institute for Gerontology; the Institute for the Study of Drugs, Alcohol and Addictive Behaviors; and the Urban Studies Program. The six academic departments and the Urban Studies Program offer seven majors and ten minor degree programs.

In addition to the many and diverse degree programs offered in the 12 academic departments, student support programs also are available: the Student Advising Program, and the Basic Skills Testing Program.

There are more than 250 full-time and part-time faculty, administrators, and support personnel in the School of Professional Studies that are highly committed to assisting students attain their career goals.

Division of Education

The Division of Education is composed of the Department of Teacher Education; the Department of Reading; the Parent Education Program, and the Child Development Center and the Education Resource Center.

The Teacher Certification Program at Metropolitan State College of Denver is fully accredited by the National Council for the Accreditation of Teacher Education and the Colorado Department of Education.

The Department of Teacher Education offers minors in early childhood and exceptional child. Professional courses leading to certification in the areas of early childhood education, elementary education, and secondary education are also offered.

The Division of Education, with the cooperation of the Modern Languages Department and Chicano studies (located in the Institute for Intercultural Studies and Services), offers a minor and endorsement in bilingual/bicultural education.

The Department of Reading offers one of the few undergraduate reading minors in the area. Course offerings provide the prospective teacher with the skills to teach developmental and remedial reading at the early childhood, elementary, and secondary school levels. The department also offers college-level reading courses.

The Office of Student Teaching serves to integrate the laboratory experiences in the professional education programs. In addition to the student teaching programs, requests for observations, research projects and studies, and tutoring situations, utilizing off-campus laboratory settings are coordinated through this office.

The Child Development Center is a preschool laboratory which serves as a training facility for students enrolled in early childhood and other educational programs. The center provides a setting for college students to observe and participate in an ongoing educational program for young children.

The laboratory schools are a cooperative endeavor of Metropolitan State College of Denver and selected public schools. The purposes of the laboratory schools are: (1) to provide more effective education for the elementary school pupils and the Division of Education students; (2) to provide professional development and collaborate opportunities for both faculties; and (3) to fully utilize all available resources of the Auraria campus and communities.

The Education Resource Center is a facility designed to provide materials and resources for teacher education students and faculty members for coursework, field experiences and laboratories. The resource center presents guest lectures, workshops, and seminars.

Teacher Education, Certification, and Related Programs

The Teacher Education Department offers professional preparation for teaching and education-related careers. These programs include initial teacher certification and endorsement to teach in public schools in Colorado at three levels: early childhood (preschool through second grade); elementary (kindergarten through sixth grade); and secondary seventh through twelfth grade); plus art, music, and physical education certification (kindergarten through twelfth grade). Minors are available in early childhood education, the exceptional child, bilingual/bicultural education with endorsement, and parent education. Courses and

workshops are offered to meet Colorado Department of Education recertification requirements and Colorado Department of Social Services group leader and director qualifications.

Early childhood programs include:

1. A professional teaching sequence leading to a Colorado teaching certificate with endorsement to teach preschool through second grade.
2. A professional teaching sequence which, taken in conjunction with the Elementary Education Program, fulfills requirements both for a minor and endorsement in early childhood education. Students are eligible for a Colorado teaching certificate and endorsement to teach preschool through sixth grade.

3. A minor in early childhood education.
4. A minor in early childhood education plus the necessary courses to qualify for administration of early childhood centers. Students may also take just the courses required to be group leader and be director-qualified for the Colorado Department of Social Services.

The elementary education program consists of a professional teaching sequence leading to a Colorado teaching certificate with endorsement to teach kindergarten through sixth grade.

The secondary education program consists of a professional teaching sequence leading to a Colorado teaching certificate to teach secondary school (seventh-twelfth grades) with endorsement in art, business, English, industrial arts, mathematics, modern languages, physical education, science, social studies, Spanish, and speech. Certification is also available in elementary physical education and K-12 art, music, and physical education.

The exceptional child program prepares teachers and other human service professionals to work with exceptional children in any educational setting. The minor is appropriate for a bachelor's degree and also contains a core of courses that will meet basic requirements for graduate schools in Colorado.

The interdisciplinary bilingual/bicultural education minor prepares students to work in bilingual/bicultural classrooms and schools. A bilingual/bicultural endorsement is available.

Parent education programs include an interdisciplinary minor in parent education and a program in parent education for students who already have bachelor's degrees.

All teacher education and certification programs are approved by the Colorado Department of Education, and have full accreditation by the National Council for Accreditation of Teacher Education (NCATE). Recertification courses are available for Colorado teacher certificate holders.

Requirements for All Certification Students

Students seeking a bachelor's degree from Metropolitan State College of Denver must meet all requirements for a bachelor's degree and the course of study leading to the desired certification and endorsement. Students who already have a bachelor's or higher degree should consult with an advisor to determine the applicability of their previous degree(s) and coursework to current requirements. Specific course requirements are given under each certification and major program.

Requirements for entry to MSCD's programs for initial teacher certification are established by the Colorado Department of Education and Metropolitan State College of Denver.

- I. Prior to or during their first course in the professional education sequence, students must
 - A. Meet one of the following requirements:
 1. Rank in the top two quartiles of the candidate's high school graduating class.
 2. Score at or above 19 on the American College Test (ACT) or score 950 or above on the Scholastic Aptitude Test (SAT).
 3. Have a grade point average of at least 2.50 on a 4.00 scale for at least 30 semester hours of the most recent college or university coursework.
 - B. Pass the California Achievement Test in mathematics, spelling, and language usage at or above the 75th percentile.
 - C. Demonstrate oral competence. Students seeking bachelor's degrees should pass a public speaking course with a grade of "B" or above. Students who earn a grade of "C" may attempt an oral examination. Students who have bachelor's degrees but did not pass a speech course with a grade of "B" or above may attempt an oral examination.
 - D. Complete 50 clock hours of successful experience working with children and youth.

Students may not take additional teacher certification courses until they meet these requirements.

Students who fail one or more of the basic skills (California Achievement Test) examinations will be notified and provided with a list of resources for each area in which remediation is needed. Students are expected to take the initiative to seek out these resources and bring their skills in the identified areas up to an acceptable level. Candidates failing one or more sections of the basic skills test may be retested using alternate testing forms for a total of not more than three additional attempts in each of the sections failed within a four-year period. No minimum wait time between the initial test and the first two retests is required; however, a minimum of 10 weeks between the third and fourth testing sessions is required to allow for remediation.

- II. To be formally admitted to the Teacher Certification Programs, students should
 - A. Complete a Declaration of Intent form, available in the Teacher Education Office, NC 2028, or in the first course in each professional sequence.
 - B. Complete an Admission to Teacher Education form, providing evidence of having met requirements as listed in section I., above, endorsed by an advisor.
 - C. Obtain an admission card from the Teacher Education Office or from the instructors in beginning-level courses. The admission card verifies that initial requirements have been met and will admit students to class, provided prerequisites and grade point average (GPA) requirements have been met.
- III. For admission to student teaching, students must
 - A. Complete a minimum of 90 semester hours of college level coursework. Students transferring more than 60 semester hours from another institution to Metropolitan State College of Denver, or those who already hold bachelor's degrees, must complete a minimum of 20 semester hours of college-level coursework and two semesters before they can be admitted to student teaching.
 - B. Complete 200 clock hours of experience with children and youth before entering 300-level courses. This service may be with any child or youth group such as the Boy Scouts, Girl Scouts, Campfire Girls, Head Start, YMCA, YWCA, church groups, other boys' and girls' clubs, camps, recreational programs, or school or child care and education programs. Experience may be paid or volunteer, but should be with a **group** of children.
 - C. Have a minimum GPA of 2.75 for the following:
 1. All college work attempted
 2. All coursework in their major area
 3. All education courses attempted to date
 - D. Complete all professional courses required for certification with a grade of C or better.
 - E. Complete all subject area courses in the student's teaching area(s) required by the North Central Association of Colleges and Secondary Schools.
 - F. Complete all items in the personal student teaching folder, to be obtained in the Department of Teacher Education.
 - G. Have recommendations from two Metropolitan State College of Denver faculty members and/or evaluations from pre-student teaching field experiences.
 - H. Have a physical examination report including tuberculosis clearance and measles vaccination on file with the Student Health Services Office.
 - I. Have approval by the appropriate screening committee when applicable.
 - J. Complete formal application for student teaching, to be submitted to the Department of Teacher Education no later than the following dates:
 1. For fall semester student teaching — February 15
 2. For spring semester student teaching — September 15

School of Professional Studies

Students who have completed student teaching requirements at another institution or another teaching level may request to take student teaching for six semester hours.

Additional Information

All students should meet with an advisor in their endorsement area to develop a program plan. Transfer students or students who already have a bachelor's degree may have to take specified general studies courses if they have not fulfilled these requirements in their previous work. Students who have previous work in education should meet with an education advisor for an evaluation before enrolling.

The Department of Teacher Education substitutes no coursework older than seven years for required courses in the certification sequence. The department may not accept more recent coursework if there have been significant changes in content.

Grades below a "C-" in the professional courses will not be accepted. Courses for which a grade below a "C-" is received must be repeated and the college policy on *last grade stands* will apply.

Information concerning requirements and courses of study are based upon current requirements of the State of Colorado and Metropolitan State College of Denver. Requirements are subject to modification, therefore, students are advised to consult the Department of Teacher Education for the current status of requirements.

Early Childhood Programs

A new major in Child, Family and Community is being developed and may be available fall semester 1992. Consult the Department of Teacher Education for more information.

The early childhood programs at Metropolitan State College of Denver offer four options:

1. Professional teacher certification and endorsement in early childhood: preschool through second grade (ages 3-8).
2. Professional teacher certification and endorsement in early childhood in conjunction with an elementary endorsement. This sequence fulfills the bachelor's degree requirements for a minor in early childhood education.
3. A minor in early childhood education.
4. Early childhood administration, which includes the educational requirements for a minor in early childhood education and meets director qualifications for the Colorado Department of Social Services. Students may also take only those courses required by the Colorado Department of Social Services.

Colorado Teacher Certification and Early Childhood Endorsement: Preschool through Second Grade (Ages 3-8)

There are four parts to Metropolitan State College of Denver's early childhood teacher education and certification programs:

1. The professional teacher education sequence in early childhood education.
2. A major in an academic discipline.
3. A minor in an academic discipline or a professional education area.
4. MSCD general studies requirement.

1. Professional Early Childhood Education Certification Sequence

Required Courses		Semester Hours
EDU 234	Urban Early Childhood Education	3
EDU 235	Urban Early Childhood Education Field Experience	2
EDU 236	Expressive Arts for the Young Child	2
RDG 312	Developing Print Literacy: Preschool-Third Grade	4
EDU 335	Assessment and Measurement in the Early Childhood Classroom	3

EDU 337	Language Arts Curriculum for Early Childhood Education	3
EDU 360	The Exceptional Child in the Classroom	3
EDU 364	Curriculum and Management: Preprimary-6	4
EDU 431	Parents as Partners in Education	3
EDU 433	Science and Mathematics for the Young Child	2
EDU 435	Planning and Organizing the Early Childhood Classroom	3
EDU 439	Student Teaching and Seminar: Early Childhood	10
Total Hours Required for Certification		42

2. Approved Metropolitan State College of Denver Majors

Anthropology
Art
Behavioral Science
Biology
Chemistry
English
History
Journalism
Mathematics
Modern Languages
Music Education
Philosophy
Physics
Political Science
Psychology
Sociology
Spanish
Speech Communication
Human Development (transfer students)

3. Recommended Minors

Parent Education
Reading
Early Childhood Education
Exceptional Child
Bilingual/Bicultural Education

4. General Studies Requirements Specific to Early Childhood Certification

Students are required to complete the general studies requirements of Metropolitan State College of Denver. Please consult a faculty advisor in the Department of Teacher Education for guidance in selection of appropriate general studies courses for the early childhood education certification program.

Colorado Teacher Certification and Endorsement in Both Early Childhood and Elementary Education

Students seeking an endorsement in elementary education can fulfill their requirements for a minor by taking the early childhood minor. By fulfilling the minor requirement and the additional requirements as specified below, students may receive endorsement in both early childhood and elementary education.

Required Courses		Semester Hours
Early childhood education minor		22-25
Additional Requirements:		
An acceptable major, general studies coursework, and coursework in the elementary education professional sequence which fulfills elementary certification requirements.		
RDG 312	Developing Print Literacy: Preschool-Third Grade	4
ENG 346	Children's Literature	3
An additional six semester hours of student teaching at the early childhood level		6
Total		35-38

Early Childhood Administration

Students who wish to administer early childhood programs will meet Colorado Department of Social Services qualifications by taking the early childhood minor plus additional courses specified by the Colorado Department of Social Services, as shown below. Students do not have to be admitted to the teacher certification program to take this sequence of courses, nor do they have to be degree-seeking.

Required Courses			Semester Hours
Early childhood education minor			22-25
Additional Required Courses for Administration			
PSY	101	Introductory Psychology	3
PSY	180	Developmental Educational Psychology (prerequisite to all 300- and 400-level early childhood education courses)	4
HES	204	Introduction to Nutrition	3
EDU	334	Administration of Early Childhood Programs	4
SOC	101	Introduction to Sociology	3
or			
EDU	431	Parents as Partners in Education	3
Total			42-45

Note: Students seeking only director qualifications may take just those courses required by the Colorado Department of Social Services. Colorado Department of Social Services regulations may be changed. Consult with the Teacher Education Department for additional information.

Highly Recommended Courses

HPS	206	Advanced First Aid and Cardiopulmonary Resuscitation	3
EDU	332	Care and Nurture of Infants and Toddlers	3

Minor in Early Childhood Education

Minor in Early Childhood Education			Semester Hours
Required Courses			
EDU	234	Urban Early Childhood Education	3
EDU	235	Urban Early Childhood Education Field Experience	2
EDU	236	Expressive Arts for the Young Child	2
EDU	335	Assessment and Measurement in the Early Childhood Classroom	3
EDU	337	Language Arts Curriculum for Early Childhood Education	3
EDU	431	Parents as Partners in Education	3
EDU	435	Planning and Organizing the Early Childhood Classroom	3
EDU	438	Teaching Practicum in Pre-primary Early Childhood Education	3-6
Total Hours Required for Minor			22-25

Note: PSY 180 Developmental Educational Psychology is a prerequisite to all 300 and 400 level early childhood education courses.

Highly Recommended:

EDU	332	Care and Nurture of Infants and Toddlers	3
EDU	436	Cultural Influence on the Socialization of Children	4

Elementary Education Program

Colorado Teacher Certification and Elementary Endorsement (Kindergarten through 6th Grade)

There are four parts to Metropolitan State College of Denver's elementary teacher certification program:

1. The professional teacher education sequence in elementary education;
2. A major in an academic discipline
3. A minor in an academic discipline or a professional education area
4. MSCD general studies requirement.

1. Professional Elementary Education and Certification Sequence

Required Courses			Semester Hours
EDU	212	Elementary Education in the United States	3
EDU	264	Urban and Multicultural Education	3
EDU	213	Activities and Health for the Elementary Child	3
EDU	3XX	Art and Music Methods for the Elementary Teacher	2
EDU	360	The Exceptional Child in the Classroom	3
EDU	361	Introduction to Educational Technology	2
EDU	364	Curriculum and Management: Pre-primary-6	4
EDU	410	Language Arts and Social Studies Curriculum: Pre-primary-6	4
EDU	412	Science and Math Curriculum: Pre-primary-6	4
RDG	313	Teaching Reading in the Elementary School K-6	4
EDU	419	Student Teaching & Seminar: Elementary K-6	10
Total Hours Required for Certification			42

2. Approved Metropolitan State College of Denver Majors

Anthropology
Art
Behavioral Science
Biology
Chemistry
English
History
Mathematics
Modern Languages
Music Education
Philosophy
Physics
Political Science
Psychology
Sociology
Spanish
Speech Communication
Human Development (transfer students)

3. Recommended Minors

Early Childhood Education*
Parent Education
Reading
Exceptional Child
Bilingual/Bicultural*

*Concurrent endorsement available in early childhood, elementary, or bilingual/bicultural education.

4. General Studies Requirements Specific to Elementary Education Certification

Students are required to complete the general studies requirements of Metropolitan State College of Denver. Please consult a faculty advisor in the Department of Teacher Education for guidance in selection of appropriate general studies courses for the elementary education certification program. A middle school endorsement program is being developed and may be available fall semester 1992. Consult the Department of Teacher Education for more information.

Secondary Level

Students may be certified at the secondary level, being endorsed to teach in the following areas: art, business (BED courses will not be offered after spring 1992), English, industrial arts, mathematics, music education, physical education, science, social studies, Spanish, French, German, and speech.

School of Professional Studies

Students should ask for advisors in the Department of Teacher Education as well as in the departments of their major and minor fields of study.

In addition to a major in the above areas, students must complete the following professional course program:

Required Courses

Social and Cultural Bases of Secondary Schools

A block of two courses to be taken concurrently.

EDU	221	Processes of Education in Urban Secondary Schools	3
EDU	222	Field Experiences in Urban Secondary Schools	2

Psychological and Physiological Bases of Secondary Education

EDU	320	The Adolescent as a Learner	3
RDG	328	Teaching of Reading and Writing in the Content Areas	4
EDU	360	The Exceptional Child in the Classroom	3

In lieu of EDU 360, physical education certification students take:

HPS	462	Adaptive Human Performance and Sports Activities	3
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Processes of Teaching in the Secondary Schools

A block of two courses to be taken concurrently and not earlier than two semesters before student teaching.

EDU	321	Secondary School Curriculum and Classroom Management	3
EDU	322	Field Experience in Tutoring and Materials Construction	2
EDU	361	Introduction to Educational Technology	2

Teaching Practice

EDU	429	Student Teaching and Seminar: Secondary 6-12	6, 8, 10 or 12
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Total 28-34

Students who seek secondary certification should also check the general certification requirements listed under Teacher Education Program.

Before enrolling for student teaching, students are directed to take a course in methods of teaching their major and minor field of study offered in the respective departments.

The following course of study is suggested for those students who have a bachelor's or higher degree, and who are primarily completing certification courses at Metropolitan State College of Denver. Completion of the program takes a minimum of three semesters. Additional time may be required to complete subject area courses.

Semester I

EDU	221	Processes of Education in Urban Secondary Schools	3
EDU	222	Field Experience in Urban Secondary Schools	2
EDU	320	The Adolescent as a Learner	3

Semester I or II

To be taken as offered, or as these courses fit into the student's schedule

RDG	328	Teaching of Reading and Writing in the Content Areas	4
EDU	360	The Exceptional Child in the Classroom	3
EDU	361	Introduction to Educational Technology	2
—	—	Methods of Teaching Major Subject	
—	—	Methods of Teaching Second Teaching Field, if applicable	

Semester II

EDU	321	Secondary School Curriculum and Classroom Management	3
EDU	322	Field Experience in Tutoring and Materials Construction	2

ALL OF THE ABOVE LISTED COURSES ARE PREREQUISITES FOR STUDENT TEACHING

Semester III

EDU	429	Student Teaching and Seminar: Secondary 6-12 (Not available summer term)	12
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Business Certification Program

BED courses will not be offered after spring 1992. The program requires the completion of degree requirements in the School of Business; the secondary level professional sequence; the requirements for vocational credentials; two of the teaching fields listed below; and the following courses:

Required Courses

BED	360	Principles of Business Education	2
BED	361	Methods of Teaching Typewriting/Keyboarding and Word processing	3

One three semester hour course in beginning or intermediate typing 3*

Bookkeeping and Accounting

ACC	309	Income Tax I	3
ACC	340	Cost Accounting	3
or			
ACC	351	Intermediate Accounting	3
BED	363	Methods of Teaching Bookkeeping, Accounting, and Basic Business (fall semesters)	3

Consumer Economics and Basic Business

FIN	225	Personal Money Management	3
BED	363	Methods of Teaching Bookkeeping, Accounting, and Basic Business (fall semesters)	3
PHI	390	Business Ethics	3

Data Processing

BED	xxx	Teaching Data Processing course	3
CMS	327	Micro-based Software	3
CMS	350	Fundamentals of Systems Analysis and Design	3

Secretarial

CMS	223	Word Processing	3
BED	362	Methods of Teaching Stenography	3

One three semester course in office practices and procedures 3*

Total 17

Requirements for Vocational Credentials

- 4,000 hours of related work experience within the past 10 years, 2,000 of which must have been completed within the past five years.
- Completion of the following three vocational courses (two semester hours credit each):
 - Foundations of Vocational Education*
 - Coordinating Techniques*
 - Student Organizations*

*Students should consult with a faculty advisor regarding the completion of these non-MSCD courses.

Science Certification Program

The program includes a major in one area of science, an area of emphasis in a second area, and a sampling from additional areas of science and mathematics. The program satisfies both major and minor requirements, so no further minor is required.

Major

Students must complete an academic major at Metropolitan State College of Denver in one of the following areas:

Biology
Chemistry
Earth-Space Science
Physics

PLEASE CONSULT WITH THE TEACHER EDUCATION DEPARTMENT FOR A LIST OF APPROVED AND/OR REQUIRED COURSES IN THE MAJOR AND FOR CERTIFICATION.

Science Support Area

Students must complete one of the following teaching areas of emphasis other than that of the major.

		Semester Hours
Biology		
BIO	108	General Introduction to Biology 4
BIO	210	General Botany 5
BIO	220	General Zoology 5
BIO	355	Urban Ecology 4
or		
BIO	360	General Genetics 3
Subtotal		17-18
Chemistry		
CHE	120	General Chemistry I 5
CHE	121	General Chemistry II 5
CHE	300	Analytical Chemistry 3
CHE	301	Analytical Chemistry Lab 2
CHE	310	Organic Chemistry I 4
CHE	312	Organic Chemistry Lab I 2
Subtotal		21
Earth Science		
GEL	101	General Geology 4
GEL	103	Historical Geology 4
GEG	100	World Regional Geography 3
GEG	123	Weather and Climate 3
or		
MTR	140	Introduction to Meteorology 3
GEG	124	Landforms 3
or		
GEL	212	Geomorphology of the U.S. 3
AST	104	Introduction to Astronomy 3
Subtotal		20
Mathematics		
MTH	141	Calculus I 4
MTH	310	Introduction to Mathematical Proofs 3
MTH	361	Methods of Teaching Mathematics 3
10 additional hours to be selected from:		
MTH	241	Calculus II 4
CSI	130	Introduction to Structured Programming 4
MTH	311	Abstract Algebra I 3
MTH	321	Probability and Statistics 4
MTH	360	History of Mathematics 3
MTH	365	Foundations of Geometry 3
Subtotal		20
Physics		
PHY	231	General Physics I 4
PHY	232	General Physics Lab I 1
PHY	233	General Physics II 4
PHY	234	General Physics Lab II 1
Plus eight additional hours in physics		8
Subtotal		21
A support area in computer science is being proposed. Check with the Teacher Education Department or Mathematics Department for further information.		
General Requirements		
These may be fulfilled in the academic major or teaching area of emphasis.		
Choose at least one course from each of the following areas:		
Biology		
BIO	108	General Introduction to Biology 4
Chemistry		
CHE	110	Principles of Chemistry 5
or		
CHE	120	General Chemistry I 5
Earth Science		
AST	104	Introduction to Astronomy 3
or		
GEG	100	World Regional Geography 3
or		

GEL 101 General Geology 4

Physics

PHY 201 College Physics I 5

or

PHY 231 General Physics I 4

Mathematics

MTH 111 College Algebra 4

or

MTH 112 College Trigonometry 3

or

MTH 121 Introduction to Statistics 4

or

MTH 140 Pre-Calculus Mathematics 4

or

MTH 141 Calculus I 4

or

CSI 130 Introduction to Structured Programming 4

or

MTH 320 Biostatistics 3

or

MTH 360 History of Mathematics 3

Science

This course is required:

SCI 395 Methods of Teaching Science 3

Subtotal 22-25

Notes

Physics majors should choose AST 104 and MTH 151 to meet certification requirements.

Students who elect the earth science or physics teaching areas of emphasis must choose at least one upper-division course in addition to SCI 395.

A course in environmental concerns/conservation will soon be required by the Colorado Department of Education.

Permission is being sought for mathematics to be included as an area of emphasis. Check with the Teacher Education Department.

Social Studies Certification Program

The program includes a major in one area of social science, an area of emphasis in a second area, and a sampling from every social/behavioral science.

The program meets both major and minor requirements; an additional minor is not required.

Major

Students must complete an academic major at Metropolitan State College of Denver in one of the following areas:

African American Studies
 Anthropology
 Behavioral Science
 Chicano Studies
 Economics
 History
 Political Science
 Psychology
 Sociology

PLEASE CONSULT WITH THE TEACHER EDUCATION DEPARTMENT FOR LIST OF APPROVED AND/OR REQUIRED COURSES IN THE MAJOR AND FOR CERTIFICATION.

Social Studies Area of Emphasis

Students must complete one of the following teaching areas of emphasis. History must be selected unless the academic major is history.

History

HIS 101 Western Civilization to 1715 3
 HIS 102 Western Civilization Since 1715 3

School of Professional Studies

HIS	121	American History to 1865	3
HIS	122	American History Since 1865	3
Six additional upper-division history hours selected in consultation with the department. Reading courses will not apply.			6
Subtotal			18

African American Studies

AAS	101	Introduction to African American Studies	3
AAS	200	Social Movement and the Black Experience	3
Six additional hours in African American studies; three must be upper-division. African American History is recommended. Students should consult with a faculty advisor regarding selection of these courses.			6
Subtotal			12

Anthropology

ANT	101	Physical Anthropology and Prehistory	3
ANT	131	Introduction to Cultural Anthropology	3
Six additional upper-division hours in anthropology			6
Subtotal			12

Chicano Studies

CHS	100	Introduction to Chicano Studies	3
CHS	101	History of Meso-America: Pre-Columbian and Colonial Periods	3
CHS	102	History of the Chicano in the Southwest: Mexico and U.S. Periods	3
Three additional upper-division hours in Chicano studies			3
Subtotal			12

Economics (18 semester hours)

ECO	201	Principles of Economics — Macro	3
ECO	202	Principles of Economics — Micro	3
Twelve additional upper-division hours in economics			12
Subtotal			18

Geography

GEG	123	Weather and Climate	3
or			
MTR	140	Introduction to Meteorology	3
GEG	130	Introduction to Human Geography	3
GEG	140	World Resources	3
GEG	496	Global Environmental Challenges	3
Subtotal			12

Political Science

PSC	101	American National Government	3
PSC	102	Political Systems and Ideas	3
PSC	300	American State and Local Government	3
PSC	305	Political Theory	3
Subtotal			12

Psychology

PSY	101	Introductory Psychology	3
PSY	211	Educational Psychology	3
PSY	326	Psychology of Adolescence	3
Three additional hours of electives. Suggested: PSY 216, 221, 241. Consult with Psychology Department advisor in choosing electives.			3
Subtotal			12

Sociology (12 semester hours)

SOC	101	Introduction to Sociology	3
SOC	360	Research in the Social Sciences	3
Six additional hours of electives, three of which must be upper-division.			6
Subtotal			12

General Requirements

(Some may be satisfied in academic major or support area.)

HIS	401	Methods of Teaching Social Science: Secondary School	3
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Select one course from each of the following areas:

African American Studies*
 Anthropology
 Chicano Studies

Economics
 Geography**
 Political Science
 Psychology
 Sociology

*African American History or other course dealing with African American experience in the United States.

**GEG 100-3 World Regional Geography or GEG 140-3 World Resources suggested. These credits are to be taken as part of general studies.

A course in international studies will soon be required by the Colorado Department of Education.

Exceptional Child Minor

The minor in exceptional child is designed to prepare teachers, physical educators, recreational therapists, counselors, and professionals to work with exceptional children in educational therapeutic and recreational settings. The minor also will serve as a prerequisite core for MSCD teacher education students who desire to pursue graduate programs in special education or gifted education.

Required for Either Emphasis:

EDU	360	The Exceptional Child in the Classroom	3
One 3 hour course from alternate emphasis			3

Gifted Education Emphasis

EDU	346	Introduction to the Education of the Gifted and Talented	3
ART	439	Integrating the Arts for Gifted and Talented	3
EDU	442	Methods and Materials for Teaching the Gifted	3
EDU	443	Field Experience in Gifted and Talented	1
EDU	444	Teaching Thinking Skills to the Gifted	2
Total Hours			15

Special Education Emphasis

Select a minimum of 12 hours:

SED	340	Educational Exceptionality and Human Growth	3
SED	343	Field Testing Remedial Techniques in Special Education	3
SED	344	Counseling Parents of Exceptional Children	3
SED	349	Education of the Learning Disabled	3
HPS	462	Adaptive Human Performance and Sports Activities	3
Total			12
Total Hours Required			18-21

Bilingual/Bicultural Education Minor

The Division of Education offers a minor in bilingual/bicultural education. The minor is an interdisciplinary program sponsored by Chicano Studies, the Teacher Education Department, the Modern Language Department, and the Reading Department. The principal objective of the bilingual/bicultural minor is to prepare future teachers who will be able to conduct all phases of classroom instruction in a bilingual and bicultural setting. In the developmental sequence, the minor will provide the potential teacher with a background of the Mexican heritage and with an understanding of present day Hispano/Chicano culture. Proficiency in the Spanish language is required of all students before they complete the minor. This proficiency will prepare the teacher to understand and further develop the native tongue of bilingual/bicultural children, while offering a second language to many other children. In addition, the minor will provide the teacher with sufficient field and academic experiences and resources in order to develop, implement, and evaluate curricular methods, techniques, and materials in the bilingual/bicultural classroom. For students who do not student teach in a bilingual/bicultural program, the practicum in bilingual/bicultural education will be required.

Required Courses and Recommended Sequence			Semester Hours
CHS	102	History of the Chicano in the Southwest: Mexico and U.S. Periods	3
EDU	351	Perspectives in Bilingual/Bicultural Education	4
RDG	353	Teaching Reading to Non-English Speakers	2
SPA	310	Spanish Terminology for the Bilingual Classroom	2
RDG	358	Reading in the Bilingual/Bicultural Classroom	3
EDU	451	Development of Methods and Materials for the Bilingual/Bicultural Classroom	4
CHS*	Electives	3
SPA*	Electives	3
Total			24

*Must be advanced courses and taken with the approval of the bilingual advisor.

Courses Strongly Recommended in Chicano Studies and Spanish

CHS	310	The Chicano Community	3
CHS	330	Education of Chicano Children	3
SPA	311	Advanced Conversation	3
SPA	315	Spanish Phonetics and Diction	3
SPA	322	Folklore and Culture of the Mexican Southwest	3

Required when student teaching in a bilingual/bicultural program is not completed:

EDU	452	Practicum in Bilingual/Bicultural Education	3
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Preparation Requirements

Language Proficiency: Proficiency in oral and written Spanish will be determined by a committee composed of Spanish-speaking members of the Modern Language Department, Chicano Studies, and the Department of Teacher Education. The four-skills exam is used as the proficiency measure. Students who fail to achieve a satisfactory score on the proficiency examination will be required to take sufficient Spanish classes to enable them to pass the proficiency examination. The following courses are designed to help students meet the proficiency requirements before the completion of the bilingual/bicultural minor:

SPA	101	Elementary Spanish I	5
SPA	102	Elementary Spanish II	5
SPA	211	Intermediate Spanish	3
SPA	212	Spanish Reading and Conversation	3

Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of Education and includes the required courses listed under the holistic health and education multi-minor in the Degrees and Programs Available at MSCD section of this catalog.

Parent Education

The purpose of the parent education minor is twofold. First, the program is designed to provide students entering professions where they will deal with children and families with the information and skills necessary to conduct parent education programs. Second, 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 both to make the field of parent education more credible by providing students with education for that role and to give students a set of skills that are increasingly in demand.

The minor is seen as particularly appropriate for students entering family- and child-related fields, including (but not limited to) 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 might well be in a position to develop and conduct parent education programs; a minor in parent education should serve them well in the employment market. Other fields, also, might provide opportunities to utilize this background; parent

education happens in settings ranging from churches to industry and is not limited to educational settings in the usual sense.

The parent education minor encompasses three areas of preparation. One set of classes is intended to give students basic information necessary for effective parenting (child development, parenting techniques, family management, 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 PAR advisor to ensure an appropriate field placement.

Minor in Parent Education

Required Courses			Semester Hours
PAR	205	Introduction to Parent Education	3
PSY	180	Developmental Educational Psychology	4
or			
PSY	325	Child Psychology	3
HSW	202	Small Group Dynamics: Theory and Experience	4
HSW	204	Family Functions, Dysfunction, and Therapy	4
PSY	295	Parenting Techniques	3
PAR	307	Working with the Contemporary Family	3
HES	307	Parental Health Care Issues	3
EDU	407	Designing and Implementing Programs for Adult Learners	3
Subtotal			26-27

Field Placement: A minimum of three hours from the courses listed. The program director works closely with students and community agencies in setting up appropriate field placements.

PAR	489	Parent Education Field Placement	3
PSY	493	Seminar in Developmental Psychology	3
EDU	469	Professional Practicum	1-6
HSW	479	Professional Internship	12
NUR	485	Nursing Process: Application	5
Total Hours Required for Minor			29-30

Minimum hours required for the minor are 29-30 (depending on courses selected). If the PAR minor is combined with a major in any of the following departments (EDU, HSW, NUR, PSY), the combined total semester hours for 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 PAR minor. Approval by both departments will be necessary for such a combined program.

Note: For descriptions of other courses included in the minor, see appropriate department listings: **EDU** — Education; **HES** — Health Services; **HSW** — Human Services; **NUR** — Nursing; **PSY** — Psychology; **SOC** — Sociology; **WMS** — Women's Studies

Parent Education Program

Prerequisites: A degree (B.A., B.S., M.A., M.S.) in a field such as education, psychology, social welfare, human services, child development, or nursing.

Required Courses			Semester Hours
PAR	205	Introduction to Parent Education	3
HSW	202	Small Group Dynamics: Theory and Experiences	4
or			
HSW	204	Family Functions, Dysfunction, and Therapy	4
PSY	295	Parenting Techniques	3
PAR	307	Working with the Contemporary Family	3
HES	307	Parental Health Care Issues	3
EDU	407	Designing and Implementing Programs for Adult Learners	3
PAR	489	Parent Education Field Placement	3
Total			22

School of Professional Studies

Suggested Electives

PAR	480	Special Topics in Parent Education	
PSY	326	Psychology of Adolescence	3
HSW	204	Family Functions, Dysfunction, and Therapy	4
SOC	341	The Family in Transition	3
WMS	101	Woman in Transition	3
WMS	218	Assertiveness Training	3
SED	344	Counseling Parents of Exceptional Children	3
HSW	104	Behavior Modification	4
CHS	221	The Chicano Family	3
SWF	104	Human Behavior and the Social Environment	4
SWF	105	Family Social Services	4
SWF	301	Social Welfare Services for Children and Adolescents	4
AAS	355	The Black Family	3

Physical Education Certification

The following professional teacher education sequences are required for certification:

Elementary Physical Education Certification

Required Courses	Semester Hours
SPE 101 Fundamentals of Speech Communication	3
EDU 212 Elementary Education in the United States	3
EDU 361 Introduction to Educational Technology	2
EDU 364 Curriculum and Management: Pre-primary-6	4
HPS 462 Adaptive Human Performance & Sports Activities	3
RDG 313 Teaching Reading in the Elementary School: K-6	4
EDU 419 Student Teaching and Seminar: Elementary K-6	10
PSY 180 Developmental Educational Psychology	4
Total	33

K-12 Physical Education Certification

Required Courses	Semester Hours
SPE 101 Fundamentals of Speech Communication	3
EDU 221 Processes of Education in Urban Secondary Schools	3
EDU 222 Field Experiences in Urban Secondary Schools	2
EDU 320 The Adolescent as a Learner	3
RDG 328 Teaching of Reading and Writing in the Content Areas	4
EDU 361 Introduction to Educational Technology	2
EDU 364 Curriculum and Management: Pre-primary-6	4
EDU 419 Student Teaching and Seminar: Elementary	6 or 12 combined
EDU 429 Student Teaching and Seminar: Secondary	6 or 12 combined must total 18
HPS 462 Adaptive Human Performance & Sports Activities (in lieu of EDU 360)	3
Total	42

Secondary Physical Education Certification

Required Courses	Semester Hours
EDU 221 Processes of Education in Urban Secondary Schools	3
EDU 222 Field Experiences in Urban Secondary Schools	2
EDU 320 The Adolescent as a Learner	3
RDG 328 Teaching of Reading and Writing in the Content Areas	4
HPS 462 Adaptive Human Performance & Sports Activities (in lieu of EDU 360)	3
EDU 321 Secondary School Curriculum and Classroom Management	3
EDU 322 Field Experiences in Tutoring and Materials Construction	2
EDU 361 Introduction to Educational Technology	2
EDU 429 Student Teaching and Seminar: Secondary	12
Total	34

Reading

The Reading Department offers college level reading courses for all students and a reading minor for early childhood, elementary, and secondary education certification students.

RDG 151 is designed as a basic college level reading course which satisfies a General Studies Level I communications requirement. In order to enroll in this course, students must attain a minimal pre-assessment test score as established by the Reading Department.

The reading minor is designed to produce well-trained classroom teachers. In the sophomore and junior years, students take coursework in methods and techniques of teaching reading and receive supervised experience teaching groups of children in a school classroom setting.

In the senior year, students learn to administer a complete reading diagnosis, write a comprehensive case report based on the study of current remedial theory, develop materials for students with reading difficulties, and work in the reading clinic on a one-to-one basis with children who have severe reading problems. NOTE: A letter grade of at least a "C" must be attained in each of the courses in the reading minor.

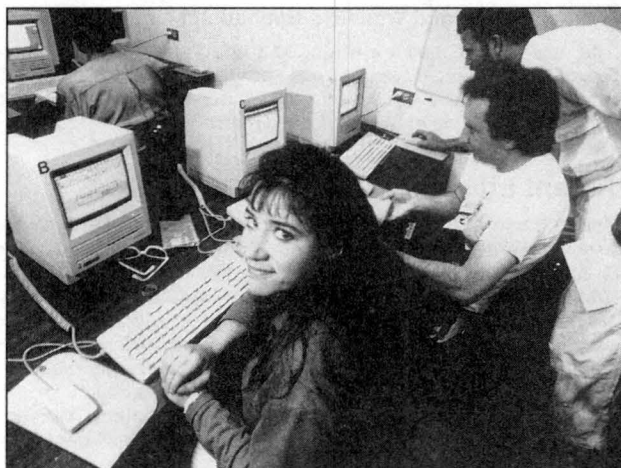
Reading Minor

Required Courses	Semester Hours
RDG 312* Developing Print Literacy: Preschool-3rd Grade	4
RDG 313* Teaching Reading in the Elementary School K-6	4
RDG 328* Teaching Reading & Writing in the Content Areas	4
RDG 314 Whole Language Integration Across the Curriculum	2
RDG 360 Practicum in Teaching Reading	3
RDG 425 Remedial Reading Theories and Diagnosis	4
RDG 434 Development of Reading Materials	2
RDG 460 Practicum in Teaching Remedial Reading	3
Total	18

*Early childhood education certification students take RDG 312; elementary education certification students take RDG 313; secondary education certification students take RDG 328.

Highly Recommended

RDG 353 Teaching Reading to Non-English Speakers	2
RDG 358 Reading in the Bilingual/Bicultural Classroom (competency in Spanish required)	3
RDG 450 Language Arts & the Classroom Computer	3



Division of Technology

The Division of Technology provides technical education to prepare graduates for employment in a wide variety of technical fields. Instruction emphasizes the development of technical competence at a level suitable for success in the various areas offered. The programs include courses in humanities and social sciences to broaden the students' general education. The various fields housed in this division offer great opportunities for women in non-traditional roles.

The Division of Technology offers degree programs in aviation management and professional pilot; civil engineering technology and surveying and mapping, electronics engineering technology; industrial and technical studies, technical and industrial administration and industrial design; mechanical engineering technology; and technical communications.

The aerospace science programs combine a thorough, practical, and technical training background with a general college education to prepare graduates for a wide variety of careers in aerospace. MSCD's Aerospace Science Department is a fully certified ground school approved by the Federal Aviation Administration, for private, instrument, and commercial FAA ratings. The department has FAA airways science accreditation for the aircraft systems management and aviation maintenance management programs.

The Civil Engineering and Environmental Technology Department offers programs in civil engineering technology, drafting, and surveying and mapping. Environmental impact studies and the application of engineering principles are used in the planning and construction of highways, buildings, bridges, and other structures. The surveying and mapping degree program is designed to prepare the graduate for registration as a professional land surveyor, as well as other careers in the field.

The electronics engineering technology degree program fuses the engineering principles and technical aspects of electronics and prepares graduates for a variety of positions in research and development, design, electronic manufacturing, and service engineering. This program emphasizes applications of theory in laboratory settings.

The Department of Technology and Technical Communications is divided into two program areas: industrial and technical studies and technical communications. Industrial and technical studies offers teaching, business and internship areas of emphasis. Technical communications specializes in technical writing and editing, organizational, and technical media communications.

The mechanical engineering technology program has areas of emphasis in mechanical and manufacturing engineering.

Department of Aerospace Science

Colorado is one of the nation's aerospace centers. Military installations, major aerospace industries, increased interest in private and corporation flying, and the airlines that serve Denver provide employment opportunities. Local Federal Aviation Administration and other government offices offer excellent sources for information. Because of this proximity, students also have the opportunity to visit these facilities and to take courses that are taught by personnel from the various organizations. The bachelor degree programs described below have been carefully planned to meet the needs of both the student and of industry. All of the technical courses have been developed in cooperation with the Federal Aviation Administration and prospective employers; students completing them are eligible to take a variety of FAA examinations leading to certification.

The aviation management program prepares the graduate to enter a wide variety of administrative positions within the various segments of the aviation industry.

The airframe and powerplant (A&P) courses are not offered by Metropolitan State College of Denver. However, students holding a valid FAA Airframe and Powerplant certificate may apply for 30 hours of credit to apply toward a bachelor of science degree providing certain validation papers are presented with the application.

All programs in the Department of Aerospace Science have been developed to meet the College Aviation Accreditation Guidelines of the University Aviation Association.

The airway science emphasis is an approved FAA program. Students majoring in any of the airway science emphases must minor in systems management.

Requirements are subject to modification; therefore, students are advised to consult the aerospace science department for the current status of requirements

Bachelor of Science

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

Aviation Management (AMG)

General Aviation Emphasis

Airway Science Management Emphasis

Aviation Maintenance Emphasis

Airway Science Maintenance Management Emphasis

Professional Pilot (PPT)

General Aviation Emphasis

Flight Engineer Emphasis

Airway Science Aircraft Systems Management Emphasis

Minors

Aviation Management (AMG)

Professional Pilot (PPT)

Airframe and Powerplant Mechanics (APL)

These programs combine a thorough, practical and technical training background with a general college education to prepare a graduate for a wide variety of careers in the aerospace industry. These four-year bachelor degree programs have been developed upon the two-plus-two concept (a bachelor of science degree program built upon a AAS two-year degree). This concept makes it extremely easy for a community/junior college graduate in an aerospace program to transfer to MSCD and earn a bachelor of science degree in our aviation program. In order to be awarded the bachelor of science degree, the student must comply with the college's general requirements for the bachelor's degree listed in this catalog under Requirements for All Degrees.

FAA Approved Ground School

MSCD Aerospace Science Department is a fully certified and approved ground school for the private, instrument and commercial FAA ratings, approved by the Federal Aviation Administration. Veterans Administration flight students should see the Aerospace Science Department chair for information on approved flight training program.

Flight Courses

Flight training is contracted for, by the student, with the flight training schools under contract with MSCD. In order to enroll in all flight courses and receive academic credit, the student must fly with MSCD's contract flight schools. Students must receive permission from the department before enrolling in flight courses.

School of Professional Studies

The cost of the flight training is in addition to regular tuition and college services fees. This cost will vary depending upon how frequently the student is able to fly during the semester and how much total time the student requires to gain the necessary proficiency. The college instructor helps the student achieve an understanding of the relationship of flight theory to flight practice in order to acquire the knowledge required to meet FAA certification standards. Flights are scheduled by the student with the contract flight training school.

Credit by Examination Procedures

The basic provision for obtaining credit-by-examination (a maximum of 30 semester hours of credit) is outlined in this catalog under academic information. The following procedures are established by the Department of Aerospace Science to implement this provision:

1. A student entering MSCD for the first time must make application for credit by examination during the first three weeks of the first semester. All examinations must be completed within the first semester.
2. A student will not be approved to take a course of a lower number than any course she or he has taken previously.
3. If a student is registered for, but has not completed a higher-numbered course, the examination for the lower numbered course must be completed within the first three weeks of the semester.
4. Examinations will not be graded during the summer session.
5. Courses authorized for credit by examination and the appropriate FAA license and/or rating are listed below:

	Course Title	FAA Certificate Required	Hours Credit
AES 110	Aviation Fundamentals	Private	6
AES 180	Commercial/Instrument Ground	Commercial/Instrument	6
AES 300	Aircraft Systems and Propulsion	Flt. Engineer	3
AES 353	Aerodynamics	Flt. Engineer	3
AES 404	Aircraft Performance	Flt. Engineer	3
AES 450	Flight Multi-Engine	Multi-Engine	1
AES 451	Flight Instructor	Flt. Instructor	1
AES 452	Flight Instructor-Instrument	Flt. Instructor	1
AES 453	Flt. Instructor-Multi-Engine	Flt. Inst. Multi	1
AES 455	Flight Helicopter	Helicopter	1
AES 457	Airline Transport Pilot	ATP Rating	1

Bachelor of Science Degree in Aerospace Science Programs

A summary of the course program and semester hours which a student must complete for a bachelor of science degree is as follows:

	Semester Hours
General Studies	36-39
Major (Select One)	47-59
Aviation Management**	
General Aviation	
or Airway Science Management**	47
Aviation Maintenance	
or Airway Science Maintenance Management**	57
Professional Pilot	
General Aviation*	51
Air Carrier*	
or Airway Science Aircraft Systems Management**	59
Business/Meteorology Minor/Meteorology or	
Approved Business Electives***	18-30
Airframe and Powerplant (A&P) Minor****	36
Free electives	0-19
Total	120-134

A recommended sequence for taking all courses in a selected major or minor and a list of required general studies may be obtained from the Department of Aerospace Science.

General Studies

Students seeking a bachelor degree in aerospace science programs must complete the general studies requirements of Metropolitan State College of Denver. Students must consult with a faculty advisor for the selection of approved general studies courses.

*All professional pilot majors must possess, as a minimum, the FAA commercial pilot certificate with an instrument rating to receive a bachelor of science degree.

**Students choosing a major in any of the airway science emphases must complete a 21 semester hour concentration in computer information systems.

***Electives program must be approved by a department advisor.

****The credit hours awarded are based on the number of clock hours required by the Federal Aviation Administration for the award of the A&P license and the credits normally awarded by junior/community colleges, thus the increased number of hours for the Aviation Maintenance emphasis major or A&P minor.

Aviation Management (AMG)

Major for Bachelor of Science

General Aviation Emphasis AV1

& Airway Science Management Emphasis AV2

Required Courses

	Semester Hours
AES 110 Aviation Fundamentals	6
AES 222 Flight Dispatcher/Load Planning	3
AES 300 Aircraft Systems and Propulsion	3
AES 321 Aviation Economics and Regulations	3
AES 322 Aviation Law and Risk Management	3
AES 323 Commuter Airline Management	3
AES 324 Airline Planning and Management	3
AES 420 Airport Planning	3
AES 421 Airport Management	3
AES 423 FBO and Aircraft Marketing	3
AES 424 Air Cargo	3
AES 486 Aviation Safety	3
AES 491 Aviation Management Problems and Job Targeting	3
MTR 141 Aerospace Meteorology	2
AES Upper Division AES Elective	2
Total	47

Suggested Electives

AES 170 Simulator—Instruments and Navigation	2
AES 205 Aviation History and Future Development	3
AES 324 Airline Planning and Management	3
AES 353 Aerodynamics	3
AES 385 Human Factors and Physiology of Flight	3
AES 387 Aircraft Accident Investigation	3
AES 404 Aircraft Performance	3
AES 460 Space Flight	3
MTR 346 Meteorology and Flight Operations	3

Aviation Maintenance Emphasis AV3

& Airway Science Maintenance Management Emphasis AV4

Students who wish to enroll in the aviation management major with the aviation maintenance area of emphasis should complete an airframe and powerplant program prior to or while attending MSCD.

Required Courses

	Semester Hours
Completion of the FAA approved Airframe and Powerplant program with appropriate college credits awarded (30 semester hours) plus:	
AES 321 Aviation Economics and Regulations	3
AES 322 Aviation Law and Risk Management	3

AES	385	Human Factors and Physiology of Flight	3
AES	420	Airport Planning	3
AES	421	Airport Management	3
AES	423	FBO and Aircraft Marketing	3
AES	486	Aviation Safety	3
AES	491	Aviation Management Problems and Job Targeting	3
AES		Upper Division AES Elective	3
Total			57

Suggested Electives

AES	170	Simulator—Instruments and Navigation	3
AES	222	Flight Dispatcher/Load Planning	3
AES	320	National Airspace Operations	3
AES	323	Commuter Airline Management	3
AES	324	Airline Planning and Management	3
AES	353	Aerodynamics	3
AES	387	Aircraft Accident Investigation	3
AES	404	Aircraft Performance	3
MTR	346	Meteorology and Flight Operations	3

Professional Pilot (PPT)

Major for Bachelor of Science

General Aviation Emphasis

			Semester Hours
Required Courses			
AES	110	Aviation Fundamentals	6
AES	170	Simulator-Instruments and Navigation	2
AES	180	Commercial/Instrument Ground	6
AES	197	Professional Pilot Documentation	0
AES	270	Simulator-Cross Country Flight	2
AES	300	Aircraft Systems and Propulsion	3
AES	320	National Airspace Operations	3
AES	321	Aviation Economics and Regulations	3
AES	323	Commuter Airline Management	3
AES	353	Aerodynamics	3
AES	385	Human Factors and Physiology of Flight	3
AES	404	Aircraft Performance	3
AES	437	Advanced Navigation Systems	3
AES	486	Aviation Safety	3
AES	491	Aviation Management Problems and Job Targeting	3
MTR	141	Aerospace Meteorology	2
MTR	346	Meteorology and Flight Operations	3
Total			51

Suggested Electives

AES	222	Flight Dispatcher/Load Planning	3
AES	322	Aviation Law and Risk Management	3
AES	324	Airline Planning and Management	3
AES	370	Simulator—IFR Procedures & Approaches	2
AES	387	Aircraft Accident Investigation	3
AES	423	FBO and Aircraft Marketing	3
AES	424	Air Cargo	3
AES	460	Space Flight	3
AES	470	Advanced Simulator & Navigational Computers	3

Flight Engineer Emphasis

			Semester Hours
Required Courses			
AES	110	Aviation Fundamentals	6
AES	170	Simulator-Instruments and Navigation	2
AES	180	Commercial/Instrument Ground	6
AES	197	Professional Pilot Documentation	0
AES	270	Simulator-Cross Country Flight	2
AES	300	Aircraft Systems and Propulsion	3
AES	320	National Airspace Operations	3
AES	321	Aviation Economics and Regulations	3
AES	323	Commuter Airline Management	3
AES	353	Aerodynamics	3
AES	385	Human Factors and Physiology of Flight	3
AES	404	Aircraft Performance	3
AES	413	Flight Engineer Duties and Responsibilities	4

AES	414	B-727 Systems	4
AES	437	Advanced Navigation Systems	3
AES	486	Aviation Safety	3
AES	491	Aviation Management Problems and Job Targeting	3
MTR	141	Aerospace Meteorology	2
MTR	346	Meteorology and Flight Operations	3
Total			59

Suggested Electives

AES	222	Flight Dispatcher/Load Planning	3
AES	322	Aviation Law and Risk Management	3
AES	324	Airline Planning and Management	3
AES	423	FBO and Aircraft Marketing	3
AES	424	Air Cargo	3
AES	460	Space Flight	3

Airway Science Aircraft Systems Management Emphasis

			Semester Hours
Required Courses			
AES	110	Aviation Fundamentals	6
AES	170	Simulator-Instruments and Navigation	2
AES	180	Commercial/Instrument Ground	6
AES	197	Professional Pilot Documentation	0
AES	270	Simulator-Cross Country Flight	2
AES	300	Aircraft Systems and Propulsion	3
AES	320	National Airspace Operations	3
AES	321	Aviation Economics and Regulations	3
AES	323	Commuter Airline Management	3
AES	353	Aerodynamics	3
AES	385	Human Factors and Physiology of Flight	3
AES	404	Aircraft Performance	3
AES	413	Flight Engineer Duties and Responsibilities	4
AES	414	B-727 Systems	4
AES	437	Advanced Navigation Systems	3
AES	486	Aviation Safety	3
AES	491	Aviation Management Problems and Job Targeting	3
MTR	141	Aerospace Meteorology	2
MTR	346	Meteorology and Flight Operations	3
Total			59

Suggested Electives

AES	222	Flight Dispatcher/Load Planning	3
AES	322	Aviation Law and Risk Management	3
AES	324	Airline Planning and Management	3
AES	423	FBO and Aircraft Marketing	3
AES	424	Air Cargo	3
AES	460	Space Flight	3

Minors

The following aerospace minors are designed primarily to afford majors in other areas within the college with the opportunity to develop an understanding of the aerospace world and sufficient familiarity with aviation skills to use in furtherance of their primary job. Aerospace majors normally may not elect the aviation management or professional pilot minors. Exception: aviation management (maintenance emphasis) may minor in professional pilot; professional pilot majors may minor in airframe and powerplant mechanics.

Aviation Management Minor

			Semester Hours
Required Courses			
AES	110	Aviation Fundamentals	6
MTR	141	Aerospace Meteorology	2
AES	321	Aviation Economics and Regulations	3
AES	322	Aviation Law and Risk Management	3
Total			14
Plus nine hours selected from the following courses:			
AES	300	Aircraft Systems and Propulsion	3
AES	323	Commuter Airline Management	3
AES	324	Airline Planning and Management	3

School of Professional Studies

AES	385	Human Factors and Physiology of Flight	3
AES	420	Airport Planning	3
AES	421	Airport Management	3
AES	423	FBO and Aircraft Marketing	3
AES	424	Air Cargo	3
AES	486	Aviation Safety	3
AES	491	Aviation Management Problems and Job Targeting	3
Subtotal			9
Total			23

Professional Pilot Minor

Required Courses

Required Courses			Semester Hours
AES	110	Aviation Fundamentals	6
MTR	141	Aerospace Meteorology	2
AES	180	Commercial/Instrument Ground	6
AES	300	Aircraft Systems and Propulsion	3
MTR	346	Meteorology and Flight Operations	3
AES	385	Human Factors and Physiology of Flight	3
AES	486	Aviation Safety	3
Total			26

In addition, all professional pilot minors must possess, as a minimum, the FAA commercial certificate with an instrument rating.

Airframe and Powerplant Mechanics Minor

Students who wish to enroll in the airframe and powerplant (A&P) mechanics minor should complete an airframe and powerplant program prior to or while attending MSCD.

Required Courses

Completion of an FAA approved airframe and powerplant program with appropriate college credit (usual semester hours awarded) 30

Plus:

AES	423	FBO and Aircraft Marketing	3
AES	486	Aviation Safety	3
Total			36

Private Pilot Minor

Required Courses

Required Courses			Semester Hours
AES	110	Aviation Fundamentals	6
MTR	141	Aerospace Meteorology	2
AES	170	Simulator—Instruments and Navigation	2
AES	197	Private Pilot Documentation	0
AES	270	Simulator—Cross-Country Flight	2
AES	385	Human Factors and Physiology of Flight	3
One of the two following courses:			
AES	300	Aircraft Systems and Propulsion	3
AES	404	Aircraft Performance	3
Total			18

In addition, all private pilot minors must possess, as a minimum, the FAA private pilot certificate.

Air Force ROTC Program

Students may register and receive credit at Metropolitan State College of Denver for Air Force Reserve Officers' Training Corps (AFROTC) classes at the University of Colorado, Boulder. The Air Force Department of Aerospace Studies offers two Air Force ROTC programs leading to a commission in the active Air Force upon earning a bachelor's degree.

Four-Year Program. The four-year program consists of the General Military Course (GMC) and the Professional Officer Course (POC). Emphasis is focused upon basic leadership qualities and preparation for the Air Force while enrolled in a baccalaureate degree program. Upon completion of the GMC, students attend a four-week field training camp at an air force base. Field training is designed to encourage leadership development and to introduce students to the active Air Force environment. The POC taken during the last two years prepares students for active duty through

practical experiences as a cadet officer. In this phase, students will concentrate on advanced leadership training in final preparation for an Air Force commission. Four-year programs are available to students with a minimum of eight semesters remaining at Metropolitan State College of Denver. Application for these programs should be made after consultation with a professor of aerospace studies, University of Colorado.

Two-Year Program. The two-year program consists of the Professional Officer Course (POC) and a six-week field training camp. Students with two years of full-time college remaining at the undergraduate, graduate level, or both, are eligible to apply. Once selected, students must successfully complete the six-week field training which includes 60 hours of academic study in addition to the regular curriculum of the four-week camp. The POC phase is identical to that explained in the four-year program.

Students should contact a professor of aerospace studies, University of Colorado, for specific requirements and options available based on each student's status at the time of program entry. Applications are accepted between September 1 and December 15.

Flight Training: Limited enrollment in expense-paid ground school and flight training is open to cadets approved and qualified for future USAF pilot training.

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 grants that pay tuition, book costs, non-refundable education fees, and subsistence of \$100 per month, tax free. All cadets enrolled in the Professional Officer Course receive \$100 per month during the regular academic year. Students are also eligible to compete for two-, three-, or four-year scholarships open to both men and women.

For further information, contact:
Professor of Air Force Aerospace Studies
Air Force ROTC Detachment 105
Folsom Stadium, Room 223
University of Colorado
Boulder, Colorado 80309
Telephone: 492-8351

Program of Study

Four-Year Program

The following courses are required during the first two years:

			Semester Hours
AFR	103	Development of Air Power I	1
AFR	104	Development of Air Power II	1
AFR	203	U. S. Military Forces I	1
AFR	204	U. S. Military Forces II	1

The following courses are required during the last two years of the program:

AFR	301	USAF Management and Leadership I	3
AFR	302	USAF Management and Leadership II	3
AFR	401	National Security Forces I	3
AFR	402	National Security Forces II	3

Two-Year Program

Veterans of military service, reservists, students with Junior ROTC, Civil Air Patrol, or equivalent experience, may be allowed advanced placement for all or a portion of the first two years. Students who successfully complete the six-week summer camp are allowed to enroll in the program at the 300 course level. ALL students must complete the courses listed under the second paragraph of the four-year program above.

Supplemental Courses and Language Requirements

All AFROTC scholarship students in the General Military Course must successfully complete a course in English composition before they can advance to the Professional Officer Course. All AFROTC scholarship students must also successfully complete a course in

an Indo-European or Asian language prior to commissioning. All Professional Officer Course students must successfully complete a course in mathematical reasoning prior to commissioning.

Army ROTC Program

Students may enroll in Army ROTC classes available on campus in the Department of Military Science. For further details and program offerings, refer to the military science section of this catalog.

Civil Engineering Technology

The specialized fields within the Department of Civil and Environmental Engineering Technology include programs in civil engineering technology, drafting, and surveying. The surveying program is a separate, specialized four-year program. The individual curriculum requirements are listed separately.

Civil engineering technology graduates apply engineering principles in performing many of the tasks necessary for the planning and construction of highways, buildings, railroads, bridges, reservoirs, dams, irrigation works, water systems, airports, and other structures. In planning for a construction project, they may participate in estimating costs, preparing specifications for materials, and participate 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 relates specifically to environmental problems. This includes design and construction of water supply facilities, design of wastewater collection and treatment facilities, design of air pollution control facilities, and design of solid and toxic waste disposal facilities. The development of environmental impact studies and environmental impact reports are also included in this area.

Following are the curriculum requirements for the various degrees, minors, and areas of emphasis.

Civil Engineering Technology Major for Bachelor of Science

The four-year bachelor of science degree is awarded upon the completion of the required courses and either a structures, environmental or surveying area of emphasis or an approved minor.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

	Semester	Hours
Required Technical Studies		
CEN 110	Civil Technology	3
CEN 120	Technical Drawing I	4
CEN 121	Technical Drawing II	4
CEN 210	Structural Drawing	4
CEN 215	Mechanics I — Statics	3
SUR 151	Surveying I	4
SUR 252	Surveying II	4
CEN 310	Construction Methods	3
CEN 312	Engineering Economy	3
CEN 313	Mechanics of Materials	3
CEN 314	Mechanics of Materials - Laboratory	1
CEN 316	Mechanics II — Dynamics	3
CEN 317	Introduction to Structural Analysis	3
CEN 318	Fluid Mechanics I	3
CEN 319	Fluid Mechanics II	3
COM 261	Introduction to Technical Writing	3
MET 311	Thermodynamics I	3
MTH 151	Computer Programming: FORTRAN	4
Approved technical electives (CEN)		6
Subtotal		64
Additional Requirements		
SPE 101	Fundamentals of Speech Communication	3
CHE 120	General Chemistry I	5

ECO 201	Principles of Economics — Macro	3
or		
ECO 202	Principles of Economics — Micro	3
MTH 111	College Algebra	4
MTH 112	College Trigonometry	3
MTH 141	Calculus I	4
MTH 241	Calculus II	4
PHY 231 & 232	General Physics I/General Physics Lab I	5
or		
PHY 201 & 203	College Physics I/College Physics Lab I	5
PHY 233 & 234	General Physics II/General Physics Lab II	5
or		
PHY 202 & 204	College Physics II/College Physics Lab II	5
Total		36

Environmental Area of Emphasis

Required Technical Studies

CEN 330	Water Supply and Treatment	3
CEN 331	Wastewater Treatment and Disposal	3
CEN 332	Environmental Impact Statements	3
CEN 430	Environmental Technology	3
CEN 431	Environmental Technology Practices	3
MTR 140	Introduction to Meteorology	3
Total		18

Structures Area of Emphasis

Required Technical Studies

CEN 410	Structural Design	3
CEN 411	Steel Design	3
CEN 412	Concrete Design I	3
CEN 413	Soils Mechanics	3
CEN 414	Concrete Design II	3
CEN 330	Water Supply and Treatment	3
or		
CEN 331	Wastewater Treatment and Disposal	3
or		
CEN 430	Environmental Technology	3
or		
CEN 431	Environmental Technology Practices	3
Total		18

Engineering and Land Surveying Area of Emphasis

Required Technical Studies

SUR 253	Route Surveying	4
SUR 262	Survey Drafting	3
SUR 354	Boundary Law I	3
SUR 453	Site Planning	3
SUR 454	Boundary Law II	3
Surveying Elective		3-4
Total		19-20

Control Surveying and Mapping Area of Emphasis

Required Technical Studies

SUR 262	Survey Drafting	3
SUR 265	Photogrammetry I	3
SUR 362	Cartographic Surveys	3
SUR 366	Land Information Systems	3
SUR 474	Geodetic and Special Surveys	3
SUR 453	Site Planning	3
Total		19

Minor in Civil Engineering Technology

Required Technical Studies

CEN 110	Civil Technology	3
CEN 120	Technical Drawing I	4
CEN 215	Mechanics I - Statics	3
CEN 310	Construction Methods	3
SUR 151	Surveying I	4
Approved lower-division technical elective		3
Approved upper-division technical elective		3
Total		23

School of Professional Studies

Minor in Drafting Engineering Technology

Required Technical Studies

CEN 120	Technical Drawing I	4
CEN 121	Technical Drawing II	4
CEN 221	Architectural Drawing	3
CEN 320	Advanced Technical Drawing	3
Approved lower-division technical elective		3
Approved upper-division technical elective		3
Total		20

Surveying and Mapping

The bachelor of science in surveying and mapping is the only one of its kind in Colorado or the region. It is designed to prepare the graduate for registration as a professional land surveyor, but is broad enough to prepare him or her for a career in any other area of surveying and mapping as well, 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 presidents 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).

Surveying and Mapping Major for Bachelor of Science

Required Technical Studies		Semester Hours
CEN 120	Technical Drawing I	4
SUR 151	Surveying I	4
SUR 252	Surveying II	4
SUR 253	Route Surveying	4
SUR 255	Surveying Computations	3
SUR 262	Survey Drafting	3
SUR 265	Photogrammetry I	3
SUR 271	Astronomy for Surveyors	2
SUR 354	Boundary Law I	3
SUR 362	Cartographic Surveys	3
SUR 366	Land Information Systems	3
SUR 376	Surveying Data Adjustments	3
SUR 448	Geodesy	3
SUR 453	Site Planning	3
SUR 454	Boundary Law II	3
SUR 465	Photogrammetry II	3
SUR 474	Geodetic and Special Surveys	4
GEL 101	General Geology	4
GEG 484	Remote Sensing	3
Subtotal		62

Required Math Minor

MTH 141	Calculus I	4
MTH 151	Computer Programming: FORTRAN	4
MTH 214	Matrix Algebra	2
MTH 241	Calculus II	4
MTH 321	Probability and Statistics	4
Approved math elective		(min.)2
Subtotal		20
Total		130

Minor in Surveying

Required Technical Studies

SUR 151	Surveying I	4
SUR 252	Surveying II	4
SUR 262	Survey Drafting	3
SUR 265	Photogrammetry I	3
SUR 271	Astronomy for Surveyors	2
SUR 362	Cartographic Surveys	3
SUR 465	Photogrammetry II	3
Total		22

Electronics Engineering Technology

Graduates are employed in a variety of positions in the following functional areas:

Research and Development

Technical activities in research and development are primarily directed toward obtaining new information and new knowledge of the field. The engineering technologist is a member of the research team. This specific work may involve the development and construction of prototypes, test and evaluation of equipment, or other activities necessary to render technical support to a research project.

Manufacturing

A graduate employed in a manufacturing facility might be involved in actual manufacturing, fabrication, test, prototype development, calibration, and quality control. In some cases, students may also become involved in sales or management.

Services

Service engineering has become a field of its own. This area involves extensive activities in the fields of computers, communications, instrumentation, new product development, and numerous other activities involving electrical and electronic systems.

Design

Some graduates design electronic equipment and systems, where the design is application oriented.

The EET curriculum provides a foundation in mathematics and science as well as a thorough treatment of the characteristics of electric circuits and electronic devices. In this four-year program, specialization may be achieved by selection of an area of emphasis in computers, communications (including satellite, fiber optics, microwave, and laser), control systems (including robotics), and power (including solar energy).

Electronics Engineering Technology

Major for Bachelor of Science

Because the program emphasizes applications of theory, students are required to take concurrent laboratory courses. In the EET 100 series of courses, students who drop or change to No Credit in the theory/laboratory course must make the same change in the companion laboratory/theory course.

The bachelor of science degree is awarded upon completion of the courses listed below. Students should contact the department for recent changes to this major.

This program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology.

Required Technical Courses		Semester Hours
EET 110	Circuits I	4
EET 111	Circuits I Lab	1
EET 112	Circuits II	4
EET 113	Circuits II Lab	2
EET 214	Electronics I	4
EET 215	Electronics II	4
EET 232	Digital Circuits I	3
EET 234	Technical Programming Applications	2
EET 235	Advanced Technical Programming	3
EET 311	Advanced Circuits I	4
EET 312	Advanced Circuits II	4
EET 333	Digital Circuits II	3
EET 336	Introduction to Microprocessors	3
EET 362	Analog and Digital Communications	3
EET 371	Automatic Control Systems I	3
EET 410	Senior Project I	1

EET	411	Senior Project II	2
CEN	305	Statics and Dynamics	4
MET	312	Heat Transfer (MET 311-3 may be substituted)	2
Upper-division EET electives (or MIS 401 and MIS 402)			6
Subtotal			62

Additional Course Requirements

ENG	101	Freshman Composition: The Essay	3
ENG	102	Freshman Composition: Analysis, Research and Documentation	3
MTH	140	Pre-calculus Math (MTH 111/112 may be substituted)	4
MTH	141	Calculus I	4
MTH	241	Calculus II	4
PHY	231	General Physics I	4
PHY	232	General Physics Lab I	1
PHY	233	General Physics II	4
PHY	234	General Physics Lab II	1
CHE	120	General Chemistry I (CHE 110 may be substituted)	5
COM	261	Introduction to Technical Writing	3
SPE	101	Fundamentals of Speech Communication	3
Level II General Studies—Historical			3
Level II General Studies—Arts and Letters			6
Level II General Studies—Social Science			6
Subtotal			54
Minor or EET Area of Emphasis			(min.) 18
(An area of Emphasis is recommended; minor must be approved by EMET Chair).			
Total			134

*Students should consult with department chair regarding the status of these electives.

Communications Area of Emphasis**Required EET Courses**

			Semester Hours
EET	363	Electromagnetic Fields	3
EET	364	Communications Lab	3
EET	367	Measurements for Communications Systems	3
EET	433	Data Communications	3
EET	462	Advanced Communication Systems	3
EET	464	Communication Circuit Design	3
Subtotal			18

Power Area of Emphasis**Required Courses**

EET	341	Electric Machines	3
EET	342	Electric Power Distribution	3
EET	343	Power Generation Using Solar Energy	3
MET	311	Thermodynamics I	3
Upper-division EET electives			6
Subtotal			18

Control Systems Area of Emphasis**Required EET courses**

EET	342	Electric Power Distribution	3
EET	372	Control Systems Laboratory	1
EET	433	Data Communications	3
EET	434	Interface Techniques	3
EET	471	Automatic Control Systems II	4
Upper-division EET elective			4
Subtotal			18

Computer Technology Area of Emphasis**Required EET Courses**

EET	334	Minicomputer Programming and Operation	4
EET	432	Digital Filters	3
EET	433	Data Communications	3
EET	434	Interface Techniques	3
Upper-division EET elective			5
Subtotal			18

Minor in Electronics Engineering Technology**Required EET Courses**

EET	110	Circuits I	4
EET	111	Circuits I Lab	1
EET	112	Circuits II	4
EET	113	Circuits II Lab	2
EET	231	Digital Logic and Telecommunications	4
or			
EET	232	Digital Circuits I	3
EET	301	Industrial Electronics	4
Total			18-19

Industrial and Technical Studies

The Industrial and Technical Studies program offers the following majors:

Bachelor of Science:

Industrial and Technical Studies (ITS)
Industrial Arts Teaching Area of Emphasis
Business Area of Emphasis
Technical and Industrial Administration (TIA)

Bachelor of Arts:

Industrial Design (IND)

Minors:

Industrial Technology
Industrial Arts Teaching

General Studies

Students must consult with a faculty advisor regarding general studies requirements.

Credit by Examination

Often students selecting the industrial and technical studies major have extensive experience in business, industry or the military that parallels the content of some of the courses. To receive credit for such experience the student must contact the program coordinator for evaluation.

Industrial and Technical Studies Major for Bachelor of Science Degree

In order to be awarded the bachelor of science degree in Industrial and Technical Studies, the student must meet the college's general specifications for the bachelor's degree and must complete the courses required for one of the two areas of emphasis (industrial arts teaching, or business) as listed below.

No minor required.

I. Industrial Arts Teaching Area of Emphasis

Graduates meet all the state requirements for a secondary teaching credential and are qualified to teach industrial arts in both junior and senior high schools. Courses are also offered which are designed for those already in teaching and desire to further their professional growth.

Required Courses

			Semester Hours
General Studies			36
ITS	101	Introduction to Woodworking	4
ITS	103	Finishing Materials and Processes	2
ITS	113	Introduction to Plastics	3
ITS	120	Introduction to General Metals: Cold Metals	2
or			
ITS	122	Introduction to General Metals: Hot Metals	2
ITS	143	Introduction to Industrial Drawing	2
ITS	150	Introduction to Graphic Arts I	2
or			

School of Professional Studies

ITS	151	Introduction to Graphic Arts II	2
ITS	166	Introduction to Power	3
Subtotal			18

Choose 2 of 3 from ITS 171, 172, or 175

ITS	171	Consumer Electricity/Electronics: Communication Systems	2
ITS	172	Consumer Electricity/Electronics: Control Systems	2
ITS	175	Consumer Electricity/Electronics: Residential Systems	2
ITS	269	Alternate Energy and Transportation	2
ITS	281	Technology, Society, and You	3
ITS	283	Manufacturing Organization and Processes	2
ITS	341	Computer Aided Drafting for Industry	3
ITS	380	Industrial Safety and Production	4
ITS	481	Curriculum & Methods of Teaching Industrial Arts	3
ITS	483	Organization & Administration of Industrial Arts	3
ITS	484	Emerging Technologies	2
ITS	486	Research in Industrial Technology	2
ITS		Upper Division Electives (two different areas)	8
Subtotal			32

Teaching Certification Requirements

EDU	221	Process of Learning in Urban Secondary Schools	3
EDU	222	Field Experiences in Urban Secondary Schools	2
EDU	320	The Adolescent as a Learner	3
EDU	321	Secondary School Curriculum & Classroom Management	3
EDU	322	Field Experiences in Tutoring & Materials Construction	2
EDU	360	The Exceptional Child in the Classroom	3
EDU	361	Introduction to Educational Technology	2
EDU	429	Student Teaching and Seminar: Secondary	12
RDG	328	Teaching of Reading & Writing in the Content Areas	4
Total			124

II. Business Area of Emphasis

Selection of the business emphasis prepares students to enter business and industry in a variety of capacities. Sales, manufacturing, management and small business operation provide diverse opportunities for graduates. Within this emphasis, speciality areas are available in:

- drafting
- graphics
- woods
- electricity/electronics
- metals

Industrial and Technical Studies Core – Non-Teaching

The following core courses are required for all speciality areas within the business emphasis.

ITS	101	Introduction to Woodworking	4
ITS	103	Finishing Materials and Processes	2
ITS	113	Introduction to Plastics	3
ITS	120	Introduction to General Metals: Cold Metals	2
ITS	122	Introduction to General Metals: Hot Metals	2
ITS	143	Introduction to Industrial Drawing	2
ITS	150	Introduction to Graphic Arts I	2
ITS	151	Introduction to Graphic Arts II	2
ITS	166	Introduction to Power	3
Subtotal			22

Choose 2 of 3 from ITS 171, 172, or 175

ITS	171	Consumer Electricity/Electronics: Communication Systems	2
ITS	172	Consumer Electricity/Electronics: Control Systems	2
ITS	175	Consumer Electricity/Electronics: Residential Systems	2
Subtotal			4
ITS	269	Alternate Energy and Transportation	2
ITS	281	Technology, Society, and You	3
ITS	283	Manufacturing Organization and Processes	2
ITS	341	Computer Aided Drafting for Industry	3

ITS	380	Industrial Safety and Production	4
ITS	486	Research in Industrial Technology	2
ITS	496	Industrial Internship	4
Subtotal			20
Total			46

General Studies 36

Science and/or Mathematics for Electricity/Electronics Speciality

MTH	111	College Algebra	4
PHY	100	Introduction to Physics	4

Business Core

Choose from the following:

ITS	370	Industrial Safety	3
ITS	371	Developments in Industrial and Technical Processes	3
ITS	372	Characteristics of Industrial and Technical Personnel Selection, Supervision, and Evaluation	3
ITS	473	Assessment of Trade and Technical Enterprises	3
ITS	474	Organizational Structures for Technical Enterprises	2
ACC	201	Principles of Accounting I	3
ACC	308	Small Business Taxation	3
ECO	201	Principles of Economics – Macro	3
MGT	221	Legal Environment of Business I	3
MGT	250	Small Business Management	3
MGT	300	Organizational Management	3
MGT	321	Commercial and Corporate Law	3
MKT	300	Principles of Marketing	3
Total			24

Specialty Areas

Drafting

ITS	341	Computer Aided Drafting for Industry I	3
ITS	350	Advanced Graphic Arts	4
ITS	441	Computer Aided Drafting for Industry II	3
ITS	487	Special Studies in Industrial and Technical Studies	5
CEN	210	Structural Drawing	4
CEN	221	Architectural Drawing	3

Electricity/Electronics

EET	200	Electric Circuits and Machines	3
EET	232	Digital Circuits I	3
EET	333	Digital Circuits II	3
EET	336	Introduction to Microprocessors	3
ITS	487	Special Studies in Electronics	4

Graphics

ITS	255	Introduction to Photography	3
ITS	341	Computer Aided Drafting for Industry I	3
ITS	350	Advanced Graphic Arts	4
ITS	487	Special Studies in Industrial and Technical Studies	5
TEI	200	Airbrush I (CCD Course)	6

Metals

ITS	231	Art Metal, Silversmith and Lapidary	2
ITS	321	Advanced Metalworking	4
ITS	341	Computer Aided Drafting for Industry I	3
ITS	420	Welding Technology	4
ITS	487	Special Studies in Industrial and Technical Studies	5

Wood

ITS	341	Computer Aided Drafting for Industry I	3
ITS	403	Advanced Wood Processes	4
ITS	487	Special Studies in Industrial and Technical Studies	12

Electives			0-7
Total			121-122

Industrial and Technical Studies Minor

This minor must be approved in writing by the program coordinator. The coordinator must approve the plan of study and will take into account the student's previous experience and future occupational goal.

Industrial Arts Teaching Minor**Required Courses**

ITS	380	Industrial Safety and Production	4
ITS	481	Curriculum and Methods of Teaching Industrial Arts	3
ITS	483	Organization and Administration of Industrial Arts	3
ITS		Lower-Division Elective	8
ITS		Upper-Division Elective	4
Total			22

Technical and Industrial Administration

The technical and industrial administration major builds on the technical expertise attained through completion of an associate of applied science, associate of science, or associate of arts degree with specialties from within the field of trade and industry (T&I) or technical education. This major provides students with an increased opportunity for career mobility and advancement in jobs related to, or associated with, their technical background.

Students who have met MSCD's general studies requirements should be able to complete the bachelor of science degree in four to five semesters. Technical credits earned in the associate degree will be accepted and applied toward requirements for a minor. Students entering this program must possess an associate degree and complete the following requirements.

**Technical and Industrial Administration
Major for Bachelor of Science Degree**

Required Courses			Semester Hours
General Studies			36
Technical and Industrial Administration			20
ITS	370	Industrial Safety	3
ITS	371	Development in Industrial and Technical Processes	3
ITS	372	Characteristics of Industrial and Technical Personnel Selection, Supervision and Evaluation	3
ITS	473	Assessment of Trade and Technical Enterprises	3
ITS	474	Organizational Structures for Technical Enterprises	2
ACC	201	Principles of Accounting I	3
MGT	300	Organizational Management	3
Select 1-12 semester hours			1-12
ITS	487	Special Studies in Industrial and Technical Studies	1-5
ITS	471	Trade and Technical Practicum	8
ITS	496	Professional Internship	4
Electives to complete 30 credit hour major			0-9
ACC	308	Small Business Taxation	3
CMS	201	Principles of Information Systems	3
FIN	225	Personal Money Management	3
FIN	342	Principles of Insurance	3
MGT	250	Small Business Management	3
MKT	200	Business and Interpersonal Communications	3
MKT	300	Principles of Marketing	3
MKT	301	Marketing Research	3
MKT	310	Retail Marketing	3
COM	Upper-division courses		
ITS	Upper-division courses		
Minor — Four upper-division credit hours must be completed in addition to technical credits transferred from associate degree. These courses must be selected in consultation with and approved by an ITS program advisor			4
Associate degree credits			50-60
Total			120

Industrial Design

The industrial design major is a joint program offered through the Art Department and Industrial and Technical Studies leading to a bachelor of arts degree.

Industrial Design Major for Bachelor of Arts Degree**No Minor Required**

			Semester Hours
Required Courses			
General Studies			36
ART	110	Drawing Processes and Concepts I	3
ART	120	Design Processes and Concepts I	3
ART	121	Design Processes and Concepts II	3
ART	201	Survey of Modern Art: Impressionism to 1960	3
ART	240	Beginning Advertising Design	3
ART	245	Beginning Product and Industrial Design	3
ART	300	Art Nouveau	3
or			
ART	303	History of Art Between World Wars	3
ART	340	Intermediate Advertising Design	3
ART	345	Intermediate Product and Industrial Design	3
ART	445	Advanced Product and Industrial Design I	3
ART	446	Advanced Product and Industrial Design II	3
ITS	101	Introduction to Woodworking	4
ITS	103	Finishing Materials & Processes	2
ITS	113	Introduction to Plastics	3
ITS	120	Introduction to General Metals: Cold Metals	2
ITS	122	Introduction to General Metals: Hot Metals	2
ITS	143	Introduction to Industrial Drawing	2
ITS	255	Introduction to Photography	3
ITS	341	Computer Aided Drafting for Industry	3
ITS	380	Industrial Safety and Production	4
ITS	403	Advanced Wood Processes	4
PSY	441	Human Factors Engineering	3
Elective courses (selected in consultation with advisor, 10 of which must be upper-division)			19
Total			120

Mechanical Engineering Technology

The program has been developed considering the needs of industry. A group of technical people from various engineering companies, industrial companies, and consulting firms in the greater Denver area serve the mechanical engineering technology program in an advising capacity.

The mechanical engineering technology program offers the bachelor of science degree in MET. It is structured with two distinct areas of emphasis. The student may select to follow: (1) a series of courses with an emphasis on manufacturing; or (2) a group of design, heat power related courses under the designated mechanical emphasis.

Graduates take creative ideas and concepts and translate them into practical applications in new machines, products, or manufacturing processes.

The mechanical engineering technology program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. Students should contact the department for recent changes to this major.

**Mechanical Engineering Technology Major for
Bachelor of Science Degree****Mechanical Engineering Technology Core**

The following core courses are required for all mechanical engineering technology areas of emphasis:

MET	100	Materials and Manufacturing Technology	3
MET	101	Manufacturing Processes	3
MET	131	Principles of Quality Assurance	3
MET	220	Materials of Engineering	3
MET	221	Mechanical Drawing	3
MET	222	Computer Aided Drafting for Engineering Technology	3
MET	301	Fluid Flow I	3
MET	307	Machine Design	3
MET	311	Thermodynamics I	3

School of Professional Studies

MET	341	Geometric Dimensioning and Tolerancing	3
MET	400	Project Engineering	3
CEN	120	Technical Drawing I (or equivalent experience)	4
CEN	215	Mechanics I/Statics	3
CEN	313	Mechanics of Materials	3
CEN	314	Mechanics of Materials Lab	1
CEN	316	Mechanics II/Dynamics	3
EET	200	Electric Circuits and Machines	3
EET	301	Industrial Electronics	4
Subtotal			50-54

Additional Course Requirements:

ENG	101,102	Freshman Composition, Freshman Composition: Analysis, Research, and Documentation*	6
SPE	101	Fundamentals of Speech Communication*	3
COM	261	Introduction to Technical Writing	3
MTH	140	Pre-Calculus Mathematics (MTH 111 and MTH 112 may be substituted)	4
MTH	141	Calculus I*	4
MTH	241	Calculus II	4
MTH	151	Computer Programming	4
PHY	201,203	College Physics I and Lab*	5
PHY	202,204	College Physics II and Lab*	5
CHE	120	General Chemistry I	5
ECO	201	Principles of Economics*	3
PHI	103	Ethics*	3
Level II General Studies – Historical*			3
Level II General Studies – Arts and Letters*			3
Level II General Studies – Social Science*			3
Subtotal			58-61

The student then selects one of the following areas of emphasis:

I. Manufacturing Area of Emphasis:

MET	300	Manufacturing Analysis	4
MET	310	N/C Computer Programming	3
MET	325	Tool Design and Production Tooling	3
MET	330	Statistical Process Control	3
MET	333	Robotics for Manufacturing	3
MET	401	Advanced Manufacturing Technology	3
MET	408	Computer Aided Manufacturing	3
Subtotal			22

II. Mechanical Area of Emphasis:

MET	302	Fluid Flow II	3
MET	312	Heat Transfer	2
MET	314	Heat Transfer Laboratory	1
MET	331	Thermodynamics II	3
MET	332	Instrumentation Laboratory	3
MET	407	Computer Aided Design	3
MET	428	Advanced Energy Technology	3
Upper-division technical elective			3
Subtotal			21

* These courses count as General Studies Courses. At least three hours of Level II must be upper-division.

MET Major/Mechanical Area of Emphasis Grand Total:		129-136
MET Major/Manufacturing Area of Emphasis Grand Total:		130-137

Mechanical Engineering Technology Minor

MET	100	Materials and Manufacturing Technology	3
MET	101	Manufacturing Processes	3
MET	131	Principles of Quality Assurance	3
MET	220	Materials of Engineering	3
Upper Division MET Electives			6
Total			18

Technical Communications

The technical communications program offers three areas of emphasis under the communications multi-major and a technical communications minor. The three areas of emphasis are technical writing and editing, organizational, and technical media. Each area of emphasis offers training in one or more communications areas that are most in demand by industry and government. Technical writing and editing prepares an individual to write, edit, and publish

the wide variety of reports, manuals, and other technical or lay publications produced by industry and government. The organizational emphasis is designed for the person who desires to manage the flow of information within a company or government agency or between industries and agencies. The technical media emphasis meets two needs of industry and government: (1) people prepared to design and implement internal training programs, and (2) people seeking careers to provide technical information through visual media.

The technical communications minor provides a general background in preparing technical information designed to meet the minimal needs of industry and government with opportunity to emphasize the area of most interest to the individual student. The minor is particularly useful to people majoring in scientific and technological disciplines as a means of expanding their employment skills.

The program welcomes students from the community and other areas of the college whose professional or academic work will benefit from one or more of the program offerings. Persons enrolling in one of the major areas of emphasis or the minor must confer with a program advisor because all degree plans are tailored to the career goals of the individual student.

Communications Multi-Major for Bachelor of Arts

Communications: Technical Writing and Editing

Sponsored by the Program in Technical Communications

This communications area of emphasis provides the student with both the theory and production practices of technical writing and editing used by industry and government. It includes coursework in the writing, editing, design, and production of technical reports, proposals, and manuals in addition to professional experience, hands-on practice with computer hardware, and the production of software instructions and manuals.

Required Core			Semester Hours
COM	272	Introduction to Communications Concepts and Systems	3
SPE	374	Psychology of Communication	
or			
SPE	410	Techniques of Persuasion	3
Total			6

Required Area of Emphasis Courses

24 hours from the following:

COM	243	Introduction to Industrial Visual Media	3
COM	244	Writing for Radio	3
COM	261	Introduction to Technical Writing	3
COM	299	Internship	arr.
COM	344	Corporate Scriptwriting for Film and Television	3
COM	354	Developing Computer-Assisted Instruction	3
COM	361	Advanced Technical Writing	3
COM	362	Industrial Editing and Production	3
COM	363	Designing Technical Publications	3
COM	364	Writing Computer-User Software Documentation	3
COM	366	Variable Topics in Industrial and Technical Communications	3
COM	378	Communications Law	3
COM	462	Critical Readings in Industrial and Technical Communications	3
COM	479	Senior Seminar in Technical Communications	3
COM	480	Workshop	arr.
COM	499	Advanced Internship	arr.
ITS	151	Introduction to Graphic Arts II	2
ITS	350	Advanced Graphic Arts	4
Total			24

Electives

12 hours of electives from any of the areas of emphasis and/or courses approved by the student's advisor that would specifically benefit the student's career goals.		12
Total		42

Communications: Organizational**Sponsored by the Program in Technical Communications**

This Communications area of emphasis prepares the student for a career in managing the flow of information within and between technical and industrial communications networks and systems. It includes practical experience and theoretical understanding of developing organizational communications theory, the cultures that exist within corporations, conflict management, and various methodologies for the dissemination of information within industrial, governmental, and other large organizations.

Required Core

		Semester Hours
COM 272	Introduction to Communications Concepts and Systems	3
SPE 374	Psychology of Communication	
or		
SPE 410	Techniques of Persuasion	3
Total		6

Required Area of Emphasis Courses**24 hours from the following:**

COM 243	Introduction to Industrial Visual Media	3
COM 261	Introduction to Technical Writing	3
COM 299	Internship	arr.
COM 351	Organizational Communication	3
COM 352	Communication of Power and Authority	3
COM 353	Corporate Cultures	3
COM 354	Developing Computer-Assisted Instruction	3
COM 356	Variable Topics in Organizational Communicat	3
COM 378	Communications Law	3
COM 479	Senior Seminar in Technical Communications	3
COM 480	Workshop	arr.
COM 499	Advanced Internship	arr.
MGMT 355	Manufacturing and Service Management	3
MGMT 461	Labor/Employee Relations	3
PSY 345	Industrial Psychology	3
PSY 441	Human Factors Engineering	3
SOC 316	Industry and Occupations	3
SPE 310	Business and Professional Speaking	3
SPE 313	Conference Leadership & Parliamentary Procedure	3
Total		24

Electives

12 hours of electives from any of the areas of emphasis and/or courses approved by the student's advisor that would specifically benefit the student's career goals. 12

Total 42

Communications: Technical Media**Sponsored by the Program in Technical Communications**

This communications area of emphasis provides the student with the theoretical understanding and the practical experience required to design, write, and produce multi-image slide and video-tape productions for non-broadcast use in industry, government, and other large organizations. Such productions are frequently used for training, image creation, and technical information dissemination.

Required Core

		Semester Hours
COM 272	Introduction to Communications Concepts and Systems	3
SPE 374	Psychology of Communication	
or		
SPE 410	Techniques of Persuasion	3
Total		6

Required Area of Emphasis Courses**24 hours from the following:**

COM 241	Basic Multi-Image Production	3
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COM 242	Basic Industrial Videotape Production	3
COM 243	Introduction to Industrial Visual Media	3
COM 244	Writing for Radio	3
COM 261	Introduction to Technical Writing	3
COM 299	Internship	3
COM 341	Advanced Multi-Image Production	3
COM 342	Advanced Industrial Videotape Production	3
COM 344	Corporate Scriptwriting for Film and Television	3
COM 354	Developing Computer-Assisted Instruction	3
COM 378	Communications Law	3
COM 441	Budgeting and Planning for Audio-Visual Productions	3
COM 479	Senior Seminar in Technical Communications	3
COM 480	Workshop	arr.
COM 499	Advanced Internship	arr.
ITS 151	Introduction to Graphic Arts II	2
ITS 255	Introduction to Photography	3
ITS 350	Advanced Graphic Arts	4
SPE 310	Business and Professional Speaking	3
SPE 313	Conference Leadership & Parliamentary Procedure	3
Total		24

Electives

Twelve hours of electives from any of the areas of emphasis and/or courses approved by the student's advisor that would specifically benefit the student's career goals. 12

Total 42

Technical Communications Minor

The technical communications minor is designed to provide additional skills for the student majoring in a scientific or technological discipline that will increase his or her employability. In addition to the required core courses, the student selects five courses which may be in one of the specialized areas or may be divided among the areas offered by the technical communications program to provide an overview of the discipline.

I. Each of the following courses:

COM 243	Introduction to Industrial Visual Media	3
COM 261	Introduction to Technical Writing	3
COM 272	Introduction to Communications Concepts and Systems	3
Semester Hours Required		9

II. Five of the following courses:

COM 241	Basic Multi-Image Production	3
COM 242	Basic Industrial Videotape Production	3
COM 244	Writing for Radio	3
COM 341	Advanced Multi-Image Production	3
COM 342	Advanced Industrial Videotape Production	3
COM 344	Corporate Scriptwriting for Film and Television	3
COM 351	Organizational Communication	3
COM 352	Communication of Power and Authority	3
COM 353	Corporate Cultures	3
COM 354	Developing Computer-Assisted Instruction	3
COM 356	Variable Topics in Organizational Communicat	3
COM 361	Advanced Technical Writing	3
COM 362	Industrial Editing and Production	3
COM 363	Designing Technical Publications	3
COM 364	Writing Computer-User Software Documentation	3
COM 366	Variable Topics in Industrial and Technical Communications	3
COM 378	Communications Law	3
COM 441	Budgeting and Planning for Audio-Visual Productions	3
COM 462	Critical Readings in Industrial and Technical Communications	3
COM 479	Senior Seminar in Technical Communications	3
Semester Hours Required		15
Total Semester Hours Required		24

Division of Public Service Professions

The Division of Public Service Professions is composed of six departments, three programs, and one institute: The Department of Criminal Justice and Criminology; the Department of Hospitality, Meeting and Travel Administration; the Department of Human Services; the Department of Military Science; the Department of Nursing and Health Care Management; the Department of Human Performance, Sport and Leisure Studies; the Air Force Reserve Officers' Training Corps Program; the Institute for the Study of Drugs, Alcohol and Addictive Behaviors; and an Adult Fitness Assessment Center.

The Department of Criminal Justice and Criminology offers a bachelor of science degree with a choice of five areas of emphasis: law enforcement/public safety, corrections, youth advocacy, criminal justice administration, and corporate security. The department also offers a bachelor of science degree in Fire Services Administration.

The Department of Human Performance, Sport and Leisure Studies offers a major in human performance and sport with six emphasis areas and a major in leisure studies with two emphasis areas with minors in human performance and sport, leisure studies, and health and safety.

The Hospitality, Meeting and Travel Administration Department provides a flexible and individualized interdisciplinary program leading to the bachelor of arts degree, with minors in hotel, restaurant, meeting and travel administration.

The Department of Human Services provides a core service in programs of rehabilitation and training which emphasizes client self-help. Such programs conducted by local, state, and federal institutions and private agencies have created expanded opportunities for a variety of interesting new and existing careers.

The Department of Military Science offers Army ROTC programs leading to a commission in the active Army, Army Reserve or National Guard.

The purposes of the baccalaureate registered nurse program and the health care management program are to provide diploma and associate degree R.N. graduates and other health care professionals with a broadened educational base for improvement of health care practice and preparation for meeting future health care needs of society.

The Air Force ROTC Program allows students to register and receive credit at Metropolitan State College of Denver for Air Force Reserve Officers' Training Corps (AFROTC) classes at the University of Colorado, Boulder.

The Institute for the Study of Drugs, Alcohol and Addictive Behaviors is designed to provide opportunities for people seeking to become state certified addictions counselors to meet those requirements through a degree in human services with an addictions emphasis or a non-degreed program through the institute.

The Institute for Gerontology was established to coordinate the interdisciplinary activities and gerontological programs at Metropolitan State College of Denver. Program areas of emphasis are offered in health care management, sociology, psychology and leisure studies.

Department of Criminal Justice and Criminology

The present and future needs of American society require substantially greater numbers and more highly educated persons in criminal justice agencies at all levels of government. Increasingly, the demand by potential employers is for applicants who have had professional education. In addition, there is considerable interest at all levels in the criminal justice system to increase professionalization through education. The present curriculum not only provides a solid foundation in police-related areas, but also prepares students who are interested in further study in the areas of probation and parole, corrections, juvenile agency work, criminal justice administration and private/corporate security. Course offerings within these professional fields are related to the human services program, public administration, urban studies and commercial enterprise.

Criminal Justice and Criminology Major for Bachelor of Science

The bachelor of science in criminal justice and criminology major is designed to provide professional courses, as well as a broad general education. The curriculum is structured for the student seeking either preservice or inservice education. Recognizing that many interested in such education are already employed in some form of criminal justice work and that many have completed coursework at the college level, the department has developed a four-year program which provides comprehensive fundamental subjects in the first two years (lower division) and emphasizes subjects of an advanced, specialized and administrative nature in the second two years (upper division). The curriculum is structured to facilitate transfer from two-year police science/criminal justice programs.

A minor in sociology, psychology, political science, business management or urban studies is strongly recommended, but others are accepted. A contract minor may also be designed to meet the individual student's area of interest.

Students must meet the college's requirements for the bachelor's degree, including general studies and should consult with a faculty advisor regarding general studies courses, the selection of a criminal justice area of emphasis and the minor.

Areas of Study

The Department of Criminal Justice and Criminology offers a bachelor of science degree with a choice of five areas of emphasis. These areas of emphasis recognize the growing specialization within the criminal justice system and the expanding information base in the fields of law enforcement, corrections, youth advocacy, criminal justice administration and corporate security. The areas also acknowledge the educational and professional needs of the criminal justice and criminology student by providing to all graduates a commonality of learning experiences through core courses required for all areas of emphasis in criminal justice and criminology.

Criminal Justice and Criminology Major for Bachelor of Science

Criminal Justice Core Required Courses for All Areas of Emphasis			Semester Hours
CJC	101	Introduction to the Criminal Justice System.	3
CJC	110	Evolutionary Legal Concepts in Criminal Justice.	3
CJC	210	Substantive Criminal Law.	3
CJC	465	Ethics for the Criminal Justice Professional.	3
Total.			12

In all areas of emphasis, students must complete a minimum of 18 upper- division semester hours.

Area of Emphasis I: Law Enforcement/Public Safety

this emphasis is designed for those students who seek academic preparation for careers within law enforcement agencies or who may be considering law school or other graduate school programs.

Required Courses in Addition to Core:			Semester Hours
CJC	212	Evidence and Courtroom Procedures	3
CJC	214	Criminal Procedure	3
CJC	312	Constitutional Law	3
Total			9

Students electing this area of emphasis must select 18 hours from the following courses to complete the law enforcement/public safety area of emphasis:

CJC	215	Municipal Law	3
CJC	220	Law Enforcement Operations	3
CJC	291	Critical Issues in Criminal Justice	1-2
CJC	314	Juvenile Law	3
CJC	320	Criminal Justice Administrative Behavior	3
CJC	335	Seminar in Delinquency Causation, Prevention and Control	3
CJC	340	Criminal Behavior and Criminal Careers	3
CJC	341	Criminal Justice and the Social Structure	3
CJC	350	Criminal Investigation	3
CJC	370	Civil Law for Criminal Justice Administration	3
CJC	440	Criminal Justice Planning, Policy Analysis, Evaluation and Budgeting Systems	3
CJC	441	Special Topics in Law Enforcement	3
Total			18

Area of Emphasis II: Corrections, Probation and Parole Administration

This emphasis is designed for those students seeking academic preparation for careers within the adult corrections systems at the community or institutional level.

Required Courses in Addition to Core:			Semester Hours
CJC	214	Criminal Procedure	3
CJC	312	Constitutional Law	3
CJC	328	Classification and Treatment of the Offender	3
Total			9

Students electing this area of emphasis must select at least 20 hours from the following courses to complete the corrections, probation, and parole administration area of emphasis:

CJC	212	Evidence and Courtroom Procedure	3
CJC	314	Juvenile Law	3
CJC	320	Criminal Justice Administrative Behavior	3
CJC	329	Probation and Parole	3
CJC	334	Counseling Skills for Corrections Personnel	3
CJC	340	Criminal Behavior and Criminal Careers	3
CJC	430	Penology	3
CJC	431	Correctional Law	3
CJC	440	Criminal Justice Planning, Policy Analysis, Evaluation and Budgeting Systems	3
CJC	442	Practicum in Corrections	5
CJC	462	Special Topics in Corrections Administration	3
Total			20

Area of Emphasis III: Youth Advocacy/Delinquency Control

This emphasis is designed for students transferring from a two-year program in criminal justice/law enforcement and for those who wish to prepare and enhance career skills for specialization in youth advocacy and delinquency control, based upon competencies acquired as a practitioner in this field. Students completing an associate degree in a criminal justice program are encouraged, but not required, to complete a minor.

Required Courses in Addition to Core:			Semester Hours
CJC	312	Constitutional Law	3
CJC	314	Juvenile Law	3

CJC	335	Seminar in Delinquency Causation, Prevention and Control	3
CJC	340	Criminal Behavior and Criminal Careers	3
CJC	345	Behavior Development and Treatment Plans	3
CJC	466	Youth Advocacy Initiatives	1-15
PSY	325	Child Psychology	3
PSY	326	Psychology of Adolescence	3
Total			22-36

NOTE: PSY 325 and PSY 326 have prerequisites.

Area of Emphasis IV: Criminal Justice Administration and Management

Designed to enhance the career skills of students preparing for specialization in criminal justice management and administration, based on competencies acquired as criminal justice practitioners or transferring from a two-year program in criminal justice/law enforcement. Students completing an associate degree in a criminal justice program are encouraged, but not required, to complete a minor.

Required Courses in Addition to Core:			Semester Hours
CJC	312	Constitutional Law	3
CJC	320	Criminal Justice Administrative Behavior	3
CJC	370	Civil Law for Criminal Justice Administration	3
CJC	440	Criminal Justice Planning, Policy Analysis, Evaluation and Budgeting Systems	3
CJC	467	Research Seminar in Criminal Justice Administration	5
Total			17

Students electing this area of emphasis must complete 12 semester hours from the following courses to meet requirements in the criminal justice administration and management area of emphasis:

CJC	310	Logic and the Law	3
CJC	314	Juvenile Law	3
CJC	325	Criminal Justice Delivery of Services and Decision-Making	3
CJC	410	Advanced Jurisprudence	3
CJC	443	Comparative Criminal Justice	3
CJC	461	Special Topics in Criminal Justice Administration	3
Total			12

Area of Emphasis V: Private Security Administration and Management

Designed for students seeking professional careers in the diverse areas of private or corporate security.

Required Courses in Addition to Core:			Semester Hours
CJC	201	Introduction to Private Security	3
CJC	212	Evidence and Courtroom Procedures	3
CJC	214	Criminal Procedure	3
CJC	312	Constitutional Law	3
CJC	320	Criminal Justice Administrative Behavior	3
CJC	341	Criminal Justice and the Social Structure	3
CJC	370	Civil Law for Criminal Justice Administration	3
CJC	385	Corporate Security Management	3
CJC	475	Crime Prevention and Loss Reduction	3
ACC	201	Principles of Accounting I	3
CMS	201	Principles of Information Systems	3
Total			33

Minor in Criminal Justice and Criminology

CJC	101	Introduction to the Criminal Justice System.	3
CJC	110	Evolutionary Legal Concepts in Criminal Justice.	3
CJC	465	Ethics for the Criminal Justice Professional.	3
CJC		Electives selected in consultation with and approved by the department advisor, at least four hours of which must be upper-division.	9
Total			18

Fire Services Administration

Major for Bachelor of Science

The bachelor of science degree in Fire Services Administration is designed to enhance professional skills of students preparing for or employed in the fire services industry. The purpose of the curriculum is to provide students who have earned an associate degree in a fire service related field with the opportunity to complete a bachelor of science degree in fire service administration. Students pursuing a degree in this area must fulfill the college's general studies curriculum as well as other college requirements and must have earned an associate degree in a fire science related field. No minor is required.

		Semester Hours
General Studies		36
Required courses in addition to general studies and community college transfer credits:		
FSA	301 Advanced Fire Services Administration	3
FSA	302 Political and Legal Foundations of Fire Protection	3
FSA	303 Analytic Approaches to Public Fire Protection	3
FSA	401 Community and the Fire Threat	3
FSA	402 Disaster and Fire Defense Planning	3
FSA	403 Human Resource Management for the Fire Services	3
PSC	302 Introduction to Public Administration	3
PSC	324 Intergovernmental Relations	3
PSC	326 Politics of Budgeting	3
ACC	320 Governmental Accounting	3
CMS	201 Principles of Information Systems	3
MGT	400 Organizational Decision Analysis	3
MGT	453 Organizational Behavior	3
MGT	462 Appraisal and Compensation	3
Total		42

Hospitality, Meeting and Travel Administration

Major for Bachelor of Arts

The Hospitality, Meeting and Travel Administration Department provides a flexible and individualized interdisciplinary major program leading to the bachelor of arts degree and four academic minor programs.

Students are offered areas of emphasis in hotel administration, meeting administration, restaurant administration or travel administration. Each area of emphasis is designed for the individual student to provide both the theoretical knowledge and practical experiences to prepare for employment in these rapidly expanding industries.

To be awarded a degree, the student must complete the general studies requirement of MSCD. Students must consult with faculty advisors for selection of approved general studies courses.

In addition to meeting degree requirements, including the general studies requirement, the HMTA student must:

1. Maintain a grade point average of 2.25.
2. Demonstrate a typing proficiency of 35 wpm.
3. Present CPR and first aid certification.
4. Demonstrate a basic competence in a foreign language.*
5. Present verification of 1,200 clock hours of on-the-job experience in the HMTA areas of emphasis. These may be secured through paid job experience, cooperative education, externships, 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.
6. Travel students must present certification of 40 clock hours of computer reservation training.
7. Complete a graduation agreement and have it approved by the advisor no later than the third semester of enrollment (second semester for transfer students) in the HMTA Program.

*Competence to be certified by MSCD Modern Language Department as

having the equivalence of, or taking SPA/FRE 111 or 112 (or other approved language) and earn a grade of "C" or better.

HMTA Core (Required of all HMTA Majors)

		Semester Hours
HMT	102 Principles of Hotel/Restaurant Administration	3
HMT	103 Principles of Meeting/Travel Administration	3
HMT	109 Job Search Strategies*	2
ANT	233 Cross-Cultural Communication	3
MGT	300 Organizational Management*	3
SPE	374 Psychology of Communication	3
HMT	465 Hospitality Employee Resource Development	3
CMS	101 Introduction to Computers*	3
Total		23

*Or equivalent approved by HMTA faculty advisor.

Hotel Administration Emphasis

Required Courses

ACC	201 Principles of Accounting I	3
HMT	256 Hotel Financial Accounting	3
HMT	351 Hotel Administration I	3
HMT	352 Hotel Administration II	3
HMT	356 Hotel/Restaurant Law	3
HMT	357 Hospitality Marketing	3
HMT	360 Beverage Control	3
HMT	365 Hospitality Property Management	3
HMT	366 Restaurant Administration I	3
HMT	466 Training & Development in Hospitality	3
Subtotal		30

In addition to the above courses, students must choose a minimum of three courses from the following list:

HMT	161 Kitchen Procedures & Production I	4
HMT	162 Kitchen Procedures & Production II	4
HMT	200 Externship I	3
HMT	250 Applied Hotel/Restaurant Operations	2
HMT	276 Meeting Administration I	3
HMT	361 Enology: The Study of Wine	3
HMT	367 Restaurant Administration II	3
HMT	375 Promotional Materials: Analysis & Design	3
HMT	400 Externship II	3
HMT	401 Externship III	1
HMT	450 Hospitality Sales	3
HMT	459 Seminar in Hotel Administration	2
HMT	473 Principles of Negotiation	3
HMT	479 Seminar in Meeting (Variable Topics)	2
Subtotal		8-11
Total		38-41

Restaurant Administration Emphasis

Required Courses

ACC	201 Principles of Accounting I	3
HMT	161 Kitchen Procedures and Production I	4
HMT	162 Kitchen Procedures and Production II	4
HMT	265 Restaurant Financial Accounting	3
HMT	356 Hotel/Restaurant Law	3
HMT	357 Hospitality Marketing	3
HMT	360 Beverage Control	3
HMT	361 Enology: The Study of Wine	3
HMT	365 Hospitality Property Management	3
HMT	366 Restaurant Administration I	3
HMT	367 Restaurant Administration II	3
HMT	466 Training and Development in Hospitality	3
Total		38

Meeting Administration Emphasis

Required Courses

ACC	201 Principles of Accounting I	3
JRN	284 Fundamentals of Public Relations	3
HMT	276 Meeting Administration I	3
MKT	300 Principles of Marketing	3
HMT	375 Promotion Materials: Analysis and Design	3
HMT	376 Meeting Administration II	3
HMT	479 Seminar in Meeting: Variable Topics	2
Subtotal		20

Electives: It is strongly recommended that meeting administration students utilize their electives and a minor to secure an area of specialization in the meeting field.

Category I (Select three hours plus MGT 400-3 Organizational Decision Making):

ECO	202	Principles of Economics — Micro	3
MGT	221	Legal Environment of Business I	3
MKT	311	Advertising	3
MKT	312	Promotional Strategy	3
ECO	315	Econometrics	3
MKT	316	Sales Management	3
ECO	350	Managerial Economics	3
MKT	371	International Marketing	3
Subtotal			6

Category II (Select six hours)

COM	243	Introduction to Industrial Visual Media	3
HMT	378	Leadership by Objectives	3
HMT	472	Meeting Law	3
HMT	473	Principles of Negotiation	3
Subtotal			6

Category III (Select six hours)

HMT	181-4	Basic Ticketing and Reservation Procedures	4
HMT	250-2	Applied Hotel/Restaurant Operations	2
HMT	351-3	Hotel Administration I	3
HMT	352-3	Hotel Administration II	3
HMT	366-3	Restaurant Administration I	3
HMT	367-3	Restaurant Administration II	3
HMT	481-4	Tour Management	4
Subtotal			6
Total			38

Travel Administration Emphasis

Required Courses			Semester Hours
HMT	181	Basic Ticketing and Reservations Procedures	4
HMT	182	Travel References and Case Studies	2
HMT	183	Cruise Development, Marketing, and Sales	4
HMT	284	Tour Operations	4
HMT	286	Tourism	2
HMT	385	Financial Management in the Travel Industry	4
HMT	386	Incentive Travel	2
HMT	481	Tour Management	4
HMT	482	Marketing in the Travel Industry	4
HMT	483	Corporate Travel Management	2
HMT	484	Travel Industry Management	4
HMT	489	Seminar in Travel: Variable Topics	2
Subtotal			38

Select two hours of credit in a travel specialization from the categories below:

Air Travel Specialization:

HMT	383	Inflight Services	2
HMT	384	Airport Services	3
HMT	485	Airline Sales	2
Travel Agency Specialization:			
HMT	285	Travel Agency Accounting	3

Corporate Travel Specialization:

HMT	485	Airline Sales	2
Total			35-36

HMTA Minors

The Hospitality Meeting and Travel Administration Department offers minors in all four areas of emphasis. Students are expected to know any prerequisites for courses in other departments.

Non-course requirements:

- 300 clock hours of on-the-job experience
- CPR and first aid certification
- Language competence
- Typing proficiency of 35 WPM

Travel students — verification of 40 clock hours of computer reservation training by a qualified reservation trainer or manager.

Minor requirements are listed below.

Hotel Administration Minor

Required Courses			Semester Hours
HMT	102	Principles of Hotel/Restaurant Administration	3
HMT	351	Hotel Administration I	3
HMT	352	Hotel Administration II	3
HMT	356	Hotel/Restaurant Law	3
HMT	357	Hospitality Marketing	3
HMT	366	Restaurant Administration I	3
HMT	465	Hospitality Employee Resource Development	3
HMT electives (approved by faculty advisor)			3
Total			24

Restaurant Administration Minor

Required Courses			
HMT	102	Principles of Hotel/Restaurant Administration	3
HMT	161	Kitchen Procedures and Production I	4
HMT	162	Kitchen Procedures and Production II	4
HMT	356	Hotel/Restaurant Law	3
HMT	357	Hospitality Marketing	3
HMT	360	Beverage Control	3
HMT	366	Restaurant Administration I	3
HMT	367	Restaurant Administration II	3
HMT	465	Hospitality Employee Resource Development	3
Total Minor			29

Meeting Administration Minor

Required Courses			
HMT	102	Principles of Hotel/Restaurant Administration	3
HMT	181	Basic Ticketing and Reservations Procedures	4
HMT	276	Meeting Administration I	3
HMT	375	Promotion Materials: Analysis and Design	3
HMT	376	Meeting Administration II	3
HMT	378	Leadership by Objectives	3
HMT	472	Meeting Law	3
HMT	473	Principles of Negotiation	3
Total Minor			25

Travel Administration Minor

Required Courses			
HMT	181	Basic Ticketing and Reservations Procedures	4
HMT	182	Travel References and Case Studies	2
HMT	183	Cruise Development, Marketing, and Sales	4
HMT	284	Tour Operations	4
HMT	375	Promotional Materials: Analysis & Design	3
HMT	385	Financial Management in the Travel Industry	4
HMT	481	Tour Management	4
HMT	482	Marketing in the Travel Industry	4
HMT	483	Corporate Travel Management	2
HMT	489	Seminar in Travel: Variable Topics	2
Total Minor			33

Human Performance, Sport and Leisure Studies

The Department of Human Performance, Sport and Leisure Studies offers course work leading to the bachelor of arts degree. Students preparing for work in industry or graduate study should take the emphasis areas of adult fitness and exercise science, athletic training, sport and allied fields, communications multimajor, or a major emphasis in leisure studies, either recreation and parks administration or therapeutic recreation. Those students preparing to teach at the elementary, secondary, or K-12 levels should take the elementary, secondary, K-12, or secondary physical education/athletic training, or secondary physical education/coaching emphasis.

School of Professional Studies

Minors in human performance and sport include emphasis areas in elementary physical education, secondary physical education (non-certification programs), sport and allied fields, coaching, dance, athletic training, adult fitness and exercise science, holistic health and wellness education multi-minor, and health and safety.

Students seeking teaching credentials in physical education must satisfy the Teacher Certification Program at MSCD in addition to all the requirements of the Department of Human Performance, Sport and Leisure Studies. Requirements for formal admission to the teacher certification 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 certification programs.

Additional Requirement: A grade of "C" or better in all HPSL courses included in major/minor programs.

Human Performance and Sport Major for Bachelor of Arts

A. Elementary Physical Education Emphasis

1. Professional Activity Courses (HSL 150)

- a. Basic Skills (all of the following):
 - Fundamentals of Movement 2
 - Physical Fitness 2
 - Tumbling 2
- b. Team Sports (four of the following):
 - Volleyball 2
 - Basketball 2
 - Soccer/Speedball 2
 - Football/Flag Football 2
 - Softball 2
 - Field Hockey/Floor Hockey 2
- c. Miscellaneous (two of the following):
 - Square and Folk Dance 2
 - Track and Field 2
 - Wrestling 2
 - Advanced Lifesaving 2
 - Racquetball and Handball 2

Total Credits 18

2. Additional Elementary Activity Courses

- HPS 250 Activities for the Young Child 3
- HPS 252 Rhythms for the Young Child 2
- HPS 258 Movement Education 3

Total Credits 8

3. Theory Classes (all of the following):

- HPS 160 Introduction to Human Performance and Sports 2
- HPS 330 Anatomical Kinesiology 3
- HPS 334 Physiology of Exercise 3
- HPS 346 Evaluation and Measurement in Human Performance, Sport and Leisure Studies 3
- HPS 350 Methods of Teaching Human Performance and Sports for Children 3
- HPS 450 Psychology of Motor Learning 3
- HPS 460 Organization, Administration of Human Performance and Sports Programs 3

Approved electives 3

Total Credits 23

NOTE: Advanced First Aid and Cardiopulmonary Resuscitation are required. Students may take HPS 206 or obtain valid Advanced First Aid and Cardiopulmonary Resuscitation cards from the American Red Cross.

Total Minimum Hours for Majors 49

Physical education teacher certification required course:

- HPS 462 Adaptive Human Performance and Sports Activities 3

NOTE: See Teacher Education Department for Colorado Teacher Certification Requirements.

B. Secondary Physical Education Emphasis

1. Professional Activity Courses (HSL 150)

Secondary physical education majors must present proof of proficiency in 15 different activities. A total of 32 credits will be

counted toward completion of the major requirements. Students must present proof of proficiency by receiving a grade of "C" or better in HPSL courses.

Semester Hours

- a. Basic Skills (all of the following):
 - Swimming 2
 - Fundamentals of Movement 2
 - Physical Fitness 2
 - Tumbling 2
- b. Team Sports (four of the following):
 - Volleyball 2
 - Football/Flag Football 2
 - Field Hockey/Floor Hockey 2
 - Soccer/Speedball 2
 - Softball 2
 - Basketball 2
- c. Individual Sports (five of the following):
 - Advanced Lifesaving 2
 - Gymnastics 2
 - Track and Field 2
 - Tennis 2
 - Archery and Badminton 2
 - Golf 2
 - Racquetball and Handball 2
 - Personal Defense 2
- d. Miscellaneous (three of the following):
 - Square and Folk Dance 2
 - Ballroom Dancing 2
 - Wrestling 2
 - Improvisation and Choreography 2
 - Weight Training 2

Total Credits 32

2. Theory Courses (all of the following):

- HPS 160 Introduction to Human Performance and Sports 2
- HPS 330 Anatomical Kinesiology 3
- HPS 332 Biomechanics 3
- HPS 334 Physiology of Exercise 3
- HPS 340 Methods of Teaching Human Performance and Sports for the Adolescent and Young Adult 3
- HPS 346 Evaluation and Measurement in Human Performance, Sport, and Leisure Studies 3
- HPS 460 Organization, Administration of Human Performance and Sport Programs 3

Approved electives 3

Total Credits 23

NOTE: Advanced First Aid and Cardiopulmonary Resuscitation are required. Students may take HPS 206 or obtain valid Advanced First Aid and Cardiopulmonary Resuscitation cards from the American Red Cross.

Total Minimum Hours for Major 55

Physical education teacher certification required course:

- HPS 462 Adaptive Human Performance and Sports Activities 3

NOTE: See Teacher Education Department for Teacher Certification Requirements.

C. K-12 Physical Education Emphasis

1. Professional Activity Courses (HSL 150)

Students must be proficient in 16 different activities, selected from the categories below. A maximum of 32 credits will be counted toward completion of the major requirements.

Semester Hours

- a. Basic Skills (all of the following):
 - Swimming 2
 - Fundamentals of Movement 2
 - Physical Fitness 2
 - Tumbling 2
- b. Team Sports (four of the following):
 - Volleyball 2
 - Football/Flag Football 2
 - Field Hockey/Floor Hockey 2
 - Soccer/Speedball 2
 - Softball 2
 - Basketball 2

c.	Individual Sports (five of the following):	
	Advanced Lifesaving	2
	Gymnastics	2
	Track and Field	2
	Tennis	2
	Archery and Badminton	2
	Golf	2
	Racquetball and Handball	2
	Personal Defense	2
d.	Miscellaneous (three of the following):	
	Square and Folk Dance	2
	Ballroom Dancing	2
	Wrestling	2
	Improvisation and Choreography	2
	Repertory Choreography	2
	Weight Training	2
Total Credits		32

2. Theory Classes

HPS	160	Introduction to Human Performance and Sports	2
HPS	250	Activities for the Young Child	3
HPS	252	Rhythms for the Young Child	2
HPS	258	Movement Education	3
HPS	278	Care and Prevention of Athletic Injuries	3
HPS	330	Anatomical Kinesiology	3
HPS	332	Biomechanics	3
HPS	334	Physiology of Exercise	3
HPS	340	Methods of Teaching Human Performance and Sport for the Adolescent and Young Adult	3
HPS	346	Evaluation and Measurement in Human Performance, Sport and Leisure Studies	3
HPS	350	Methods of Teaching Human Performance and Sports for Children	3
HPS	450	Psychology of Motor Learning	3
HPS	460	Organization, Administration of Human Performance and Sport Programs	3
HPS	399*	Field Experience in Human Performance and Sport	3
Total Credits			38-40
Total Minimum Hours for Major			70-72

*This course must be taken during the senior year in a secondary school at the level in which the student does not do student teaching.

NOTE: Advanced First Aid and Cardiopulmonary Resuscitation are required. Students may take HPS 206 or obtain valid Advanced First Aid and Cardiopulmonary Resuscitation cards from the American Red Cross.

Physical education teacher certification required course:

HPS	462	Adaptive Human Performance & Sports Activities	3
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NOTE: See Teacher Education Department for Teacher Certification Requirement.

D. Secondary Physical Education/Athletic Training Area of Emphasis

This major area is designed for the student who desires to major in human performance and sport and also obtain an emphasis in the area of athletic training, but emphasis does not meet all NATA requirements.

Required Courses

I.	Completion of Secondary Physical Education emphasis (must include HSL 150, Weight Training)	55
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II. Athletic Training Courses:

HES	204	Introduction to Nutrition	3
HPS	206	Advanced First Aid and CPR	3
PSY	216	Personality and Adjustment	3
HPS	278	Care and Prevention of Athletic Injuries	3
HPS	300	Health Programs in Human Performance and Sport	3
HPS	370	Psychology of Coaching	2
HPS	478	Advanced Athletic Training	3
Total Minimum Hours for Major			75

III. Teaching certification requirement would be the same as the secondary physical education. Completion of this program eliminates requirement of a minor.

E. Secondary Physical Education/Coaching

This emphasis is designed for the student who desires to major in human performance and sport and also wishes to obtain an emphasis in the area of coaching. Upon completion, the student may pursue "master coach" certification from the American Coaching Effectiveness Program (ACEP).

I. Complete the 55 required credit hours in the Secondary Human Performance & Sport Major.

A. Must include HSL 150 Weight Training in the miscellaneous area.

II. Take the following courses which are specific to the Coaching Emphasis:

HPS	278	Care & Prevention of Athletic Injuries	3
HPS	370	Psychology of Coaching	2
HPS	372	Science & Art of Coaching & Athletic Administration	3
HPS	466	Legal Liability for Physical Educators, Coaches, & Administrators	3

Select nine hours from the following:

Select time from the following:			
LES	371	Administration of Intramural Sports & Student Recreation	2
LES	473	Sociology of Athletics in American Society	3
HPS	399	Field Experience in Human Performance & Sports	1-3
HSW	147	Addictive Experiences: Sex, Drugs, Rock & Roll.	3
HES	204	Introduction to Nutrition	3
Total Hours Coaching			20
Hours Human Performance and Sport Secondary			55
Total Major Hours			75

III. Teaching Certification requirement as stated by Teacher Education Department.

Completion of these combined areas of emphasis eliminates the requirement of a minor.

F. Sport and Allied Fields Areas of Emphasis

			Semester Hours
HSL	150	Professional Activities (select any 12 credits)	12
HPS	160	Introduction to Human Performance and Sports	2
HPS	206	Advanced First Aid and Cardiopulmonary Resuscitation (or valid American Red Cross Card)	3
HPS	330	Anatomical Kinesiology	3
HPS	332	Biomechanics	3
HPS	334	Physiology of Exercise	3
HPS	362	Trends and Issues in Human Performance and Sports	2
LES	473	Sociology of Athletics in American Society	3
Approved electives			13

To be selected in accordance with student's intended career objectives. Must be preplanned with an advisor in HPSL Department and approved by the chair.

Total Minimum Hours for Major		44
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G. Athletic Training Area of Emphasis

The emphasis area is designed for those primarily interested in athletic training at the high school, college, or professional level and is complimentary to allied fields, e.g., biology.

			Semester Hours
HSL	150	Physical Fitness	2
HSL	150	Weight Training	2
HPS	206	Advanced First Aid and CPR	3
HPS	278	Care and Prevention of Athletic Injuries	3
HPS	300	Health Programs in Human Performance and Sport	3
HPS	330	Anatomical Kinesiology	3
HPS	332	Biomechanics	3
HPS	334	Physiology of Exercise	3
HPS	370	Psychology of Coaching	2
HPS	462	Adaptive Human Performance and Sports Activities	3
HPS	478	Advanced Techniques in Athletic Training	3
HPS	489	Internship	10
HES	204	Introduction to Nutrition	3

School of Professional Studies

PSY	216	Personality and Adjustment	3
BIO	231	Human Anatomy and Physiology I	4
BIO	232	Human Anatomy and Physiology II	4
<i>Total Minimum Hours for Major</i>			<u>54</u>

Requirements to enter and complete program:

To be accepted into the program, students must:

- Have a declared major in human performance and sports with an athletic training emphasis.
- Complete a minimum of 15 semester hours at MSCD
- Complete these prerequisite courses:
HPS 206 - Advanced First Aid & CPR/or equivalent
BIO 231/232 - Human Anatomy and Physiology I and II or acceptable transfer course
- Have a GPA of 2.75 (must be maintained).

To complete the program, students must:

- Complete 1,500 volunteer hours of work with a certified athletic trainer (required to obtain National Athletic Training Association certification but not required for graduation).
- Pass the NATA certification exam and all other requirements of NATA (not required for graduation).

H. Adult Fitness and Exercise Science Emphasis

Adult fitness and exercise science is an emphasis program for those seeking an entrance into the adult fitness profession as an instructor or who have aspirations in the exercise science field through advanced degree work in exercise physiology. For those interested and capable of pursuing an advanced graduate degree with adult fitness and exercise science as a foundation, there are careers in research, college teaching, and private corporate fitness program development.

1. Professional Activity Courses:

1. Professional Activity Courses:			Semester Hours
HSL	150	Stress Management	2
HSL	150	Physical Fitness	2
HSL	150	Weight Training	2
<i>Total Credits</i>			<u>6</u>

2. Basic Theory Courses:

HES	204	Introduction to Nutrition	3
PSY	241	Social Psychology	3
HPS	278	Care and Prevention of Athletic Injuries	3
LES	307	Health and Movement Problems in the Aging Adult	3
HPS	330	Anatomical Kinesiology	3
HPS	334	Physiology of Exercise	3
HPS	378	Fitness Programs for Special Populations	2
HPS	466	Legal Liability for Physical Educators, Coaches, and Administrators	3
HPS	468	Advanced Exercise Assessment Techniques	2
HPS	484	Comparative Fitness Programs	2
HPS	489	Internship	10
*HPS Approved Electives			2
*(Selected in accordance with student's intended career objectives. Must be preplanned with an advisor in the HPSL Department and approved by the chair of the HPSL Department).			
<i>Total Credits</i>			<u>39</u>
<i>Total Minimum Hours for Major</i>			<u>45</u>

I. Communications Multi-Major for Bachelor of Arts

Communications: Sports

Sponsored by the Department of Human Performance, Sport, and Leisure Studies

This area of emphasis is offered through the Cooperative Program for Careers in Communication. It is imperative that an area of emphasis advisor be consulted. Sports communication multi-majors are expected to engage in practical experiential situations in either sports broadcasting or sports journalism. At least one three-semester-hour internship in these areas must be considered the minimum. At least 50 percent of all major coursework should be completed prior to the internships in journalism.

Required Courses

COM	272	Introduction to Communication Concepts and Systems	3
SPE	374	Psychology of Communication	3
or			
SPE	410	Techniques of Persuasion	3
Total			6

Required Area of Emphasis Courses

SPE	240	Introduction to Radio and TV Broadcasting	3
SPE	343	Radio-Television Announcing (Prerequisite: SPE 240 and SPE 330)	3
or			
SPE	344	Radio-Television Production (Prerequisite: SPE 240)	3
SPE	348	Radio and TV Production Workshop (Prerequisites: SPE 240 and 343 or 344)	3
COM	378	Communications Law	3
JRN	181	Introduction to Journalism and Mass Media	3
JRN	182	Beginning Reporting and News Writing	3
HSL	150	Fundamentals of Movement	2
HSL	150	(Select one two-hour HSL 150 Course)	2
HPS	370	Psychology of Coaching	2
LES	473	Sociology of Athletics in American Society	3
HPS	498	Independent Study — Sports Communication (must develop and research sports topics related to specific sports, for two two-hour courses)	4
<i>Total Hours</i>			<u>31</u>

Recommended Electives

Student must take electives in three different areas; three hours must be in HSL/HPS.

SPE	224	Introduction to Stagecraft	3
SPE	330	Voice Science: Phonetics and Voice and Diction	3
SPE	347	Evolution and Cinematics as Art	3
SPE	448	Seminar Practicum in Broadcasting	3
SPE	449	Effects of Radio and TV on Contemporary Life	3
JRN	282	Beginning News Editing and Copyreading	3
JRN	286	Intermediate Reporting and News Writing	3
JRN	481	Feature Article Writing for Magazines	3
HPS	210	Officiating (by course title)	2
HPS	330	Anatomical Kinesiology	3
HPS	332	Biomechanics	3
HPS	334	Physiology of Exercise	3
HPS	362	Trends and Issues in Human Performance and Sports	2
HPS	372	Science and Art of Coaching and Athletic Administration	3
COM	244	Writing for Radio	3
COM	344	Corporate Scriptwriting for Film and Television	3
JRN	499	Omnibus Courses (Related to Sports Communication, i.e., Sports Writing, Photojournalism) Select Three	3
<i>Category Total</i>			<u>9</u>
<i>Total Minimum Hours for Major</i>			<u>46</u>

Human Performance and Sport Minors

The human performance and sport minor emphasis areas 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, sport and leisure studies, thereby enhancing one's knowledge, understanding, and skillful utilization of human performance, sport and leisure studies to pursue a better quality of life.

Minor programs will not meet requirements for teacher certification with the State Department of Education in Colorado.

Additional requirement: A grade of "C" or better in all HPSL courses included in major/minor program.

A. Elementary Area of Emphasis

A. Elementary Area of Emphasis		Hours
HSL	150 Professional Activities	4
HPS	206 Advanced First Aid and Cardiopulmonary Resuscitation and/or valid Advanced American Red Cross Card and 3 hours of HPSL Department electives	3

HPS	250	Activities for the Young Child	3
HPS	252	Rhythms for the Young Child	2
HPS	258	Movement Education	3
HPS	350	Methods of Teaching Human Performance and Sports for Children	3
HPS	460	Organization, Administration of Human Performance and Sports Programs	3
Total Credits			21

B. Secondary Area of Emphasis

HSL	150	Fundamentals of Movement	2
HSL	150	Professional Activities	8
HPS	206	Advanced First Aid and CPR (or valid Advanced American Red Cross Card. Students with valid Red Cross Cards, must substitute 3 hours HPSL Department electives)	3
HPS	334	Physiology of Exercise	3
HPS	340	Methods of Teaching Human Performance and Sports for the Adolescent & Young Adult	3
Approved electives (150 or above of HPSL Department electives)			3
Total Credits			22

C. Sport and Allied Fields Area of Emphasis

HSL	150	Professional Activities	6
HPS	160	Introduction to Human Performance & Sports	2
HPS	206	Advanced First Aid and Cardiopulmonary Resuscitation (or valid Advanced American Red Cross Card plus 3 hours of HPSL Department electives)	3
HPS	362	Trends and Issues in Human Performance and Sports	2
LES	473	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 HPSL Department			7
Total Credits			23

D. Coaching Area of Emphasis

HSL	150	Fundamentals of Movement	2
HSL	150	Weight Training	2
HSL	150	Physical Fitness	2
HSL	150	Professional Activity Courses (select in consultation with an advisor)	2
HPS	278	Care and Prevention of Athletic Injuries	3
HPS	330	Anatomical Kinesiology	3
HPS	334	Physiology of Exercise	3
HPS	370	Psychology of Coaching	2
HPS	372	Science and Art of Coaching and Athletic Administration	3
HPS	466	Legal Liability for Physical Educators, Coaches, and Administrators	3
Total Credits			25

E. Dance Area of Emphasis

HSL	150	Fundamentals of Movement	2
HSL	150	Repertory Choreography	2
HSL	150	Improvisation and Choreography	2
HSL	150	Ballroom Dancing	2
HSL	150	Teaching Dance (Ballet/Jazz/Modern)	2
HPS	244	Dance Production	3
HPS	330	Anatomical Kinesiology	3
HPS	450	Psychology of Motor Learning	3
Select one of the following electives:			
HSL	150	Rhythmic Activities for Special Populations	2
or			
HPS	252	Rhythms for the Young Child	2
or			
HPS	278	Care and Prevention of Athletic Injuries	3
Total Credits			21-22

F. Athletic Training Area of Emphasis

HSL	150	Physical Fitness	2
HSL	150	Weight Training	2
HES	204	Introduction to Nutrition	3
HPS	206	Advanced First Aid and CPR	3
PSY	216	Personality and Adjustment	3
HPS	278	Care and Prevention of Athletic Injuries	3

HPS	300	Health Programs in Human Performance and Sport	3
HPS	330	Anatomical Kinesiology	3
HPS	332	Biomechanics	3
HPS	334	Physiology of Exercise	3
HPS	478	Advanced Techniques in Athletic Training	3
Total Credits			31

G. Adult Fitness and Exercise Science Emphasis

HES	204	Introduction to Nutrition	3
PSY	241	Social Psychology	3
LES	307	Health and Movement Problems in the Aging Adult	3
HPS	378	Fitness Programs for Special Populations	2
HPS	399	Field Experience in Human Performance and Sports	1-3
HPS	468	Advanced Exercise Assessment Techniques	2
HPS	484	Comparative Fitness Programs	2
HPS	Electives (selection based on exercise science needs)		3
Total Credits			19-21

Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of Human Performance, Sport and Leisure Studies and includes the required courses listed under the holistic health and education multi-minor in the Degrees and Programs Available at MSCD section of this catalog.

Health and Safety Education**Minor in Health and Safety**

The emphasis in health education is intended to prepare students to teach health education at either the secondary, elementary, or both levels. This is an excellent area of emphasis for the student who is obtaining a teaching major in another area or for those nurses who are interested in the area of school health nurse.

Health Education Area of Emphasis

CJC	351	Drug Abuse: Legal Issues and Treatment	3
HPS	202	Community Health	3
HES	204	Introduction to Nutrition	3
HPS	206	Advanced First Aid and Cardiopulmonary Resuscitation	3
HPS	300	Health Programs in Human Performance and Sport	3
HPS	391	Safety Education	3
PSY	325	Child Psychology	3
or			
PSY	326	Psychology of Adolescence	3
Total			21

Leisure Studies

The major in leisure studies 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 field work with various types of recreation, parks, conservation, and other social service agencies.

In conjunction with the core course selections, the student will select one area of emphasis. The areas of emphasis provide the student with specialized knowledge and skills related to particular job functions provided by the various recreation-related service agencies. The areas of emphasis from which the student may select are:

1. Therapeutic Recreation Services
2. Recreation and Park Administration

In summary, leisure studies majors have the following degree requirements or options:

A. Core Courses	18 hours
B. Emphasis Area	27
C. Internship (required for NRLA/AALR certification)	12

School of Professional Studies

D. MSCD General Studies Requirements*	36
E. Minor	18-22
F. Electives	5-9
Total	120

The following courses are required by the Leisure Studies program to meet NRPA/AALR Accreditation Standards.

MTH 108	or higher	3-4
SPE 101	Fundamentals of Speech Communication	3
PSY 101	Introductory Psychology	3
SOC 101	Introduction to Sociology	3
PSY 221	Psychology of Human Development	3
CMS 101	Introduction to Computers	3

*Students should consult with an advisor for guidance in the selection of general studies courses.

Additional requirement: A grade of "C" or better in all HPSL courses included in major/minor program.

Leisure Studies Major for Bachelor of Arts

Required Courses for All Students

A. Core Courses

		Semester	Hours
LES 187	Introduction to Recreation and Leisure Services		2
LES 211	Leadership Techniques in Leisure Services		3
LES 235	Leisure Education and Recreation for Special Populations		3
HPS 346	Evaluation and Measurement in Human Performance, Sport and Leisure Studies		3
LES 387	Recreation Internship Seminar		1
LES 411	Recreation Program Construction and Control Processes		3
LES 413	Administration of Recreation and Leisure Resources		3
Total Credits			18

NOTE: Advanced First Aid and Cardiopulmonary Resuscitation are required. Students may take HPS 206 or obtain valid Advanced First Aid and Cardiopulmonary Resuscitation cards from the American Red Cross.

B. Emphasis Area (27 hours)

Students will be required to select one of two areas of special emphasis courses designed to provide the student with high degree of specialization in a chosen area of interest. These emphasis areas consist of 27 hours of course work offered by the department and other disciplines within the college.

C. Internship

LES 489	Internship	12
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This practical learning experience is designed primarily to help students make the transition from the classroom to the practical situation. Opportunity is provided for students to assume normal responsibilities involved in the delivery of services commensurate with degree emphasis. Course Evaluation will be "S" satisfactory or "U" unsatisfactory. This experience is also required for state registration.

Total hours 57

Areas of Emphasis

A. Therapeutic Recreation Services (select 27 hours)

Select six hours from the professional activities courses listed below. Students may also substitute HPS 480 omnibus (activity related) courses as approved by their advisor and chair of the department.

HSL 150	Activity and Fitness Programs for the Elderly	2
HSL 150	Rhythmic Activities for Special Populations	2
HSL 150	Camping for Special Populations	2
HSL 150	Sports Programs for Special Populations	2
Total Credits		6

Theory Courses:

HPS 330	Anatomical Kinesiology	3
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LES 333	Introduction to Therapeutic Recreation Services	3
HPS 334	Physiology of Exercise	3
LES 337	Group Leadership in Therapeutic Recreation	3
LES 359	Teaching the Handicapped to Swim	2
LES 437	Techniques in Therapeutic Recreation	3
Total Credits		17

Electives – Select four hours from the following:

HSL 150	Stress Management	2
LES 217	Recreation Arts and Crafts	2
HPS 378	Fitness Programs for Special Populations	2
LES 463	Recreation Programs for the Elderly	3
Total Credits		4
Total Hours Required for Emphasis		27
Total Hours Required for Core		18
Total Hours Required for Internship		12
Total Hours Required		57

NOTE: Areas of study recommended for minor for students with a therapeutic emphasis of study include: physical disabilities; psychiatric disorders; corrections, drug, and alcohol; special education; early childhood development; and gerontology. Consult with advisor in leisure studies.

B. Recreation and Park Administration (select 27 hours)

LES 215	Maintenance of Recreation Facilities and Equipment	3
LES 341	Camping and Outdoor Recreation	3
LES 383	Open Space and Leisure Resource Development	3
LES 455	Management of Aquatic Resources	3
LES 481	Grants and Financial Aid Programs in Recreation	3
LES 485	Management & Operations of Leisure Services and Resources	3
MGT 300	Organizational Management	3
MGT 353	Human Resources Management	3
MKT 300	Principles of Marketing	3
Total Hours Required for Emphasis		27
Total Hours Required for Core		18
Total Hours Required for Internship		12
Total Hours Required		57

Leisure Studies Minor

The leisure studies minor emphasis areas are for non-leisure studies majors, but 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 leisure studies and resource development thereby enhancing one's knowledge, understanding and skillful utilization of recreational pursuits for a better quality of life.

Additional requirement: A grade of C or better in all HPSL courses included in major/minor program.

A. Recreation and Park Administration Area of Emphasis

LES 211	Leadership Techniques in Leisure Service	3
LES 215	Maintenance of Recreation Facilities and Equipment	3
LES 383	Open Space and Leisure Resource Development	3
LES 411	Recreation Program Construction and Control Processes	3
LES 413	Administration of Recreation and Leisure Resources	3
LES 455	Management of Aquatic Resources	3
LES 465	Urban Recreation Program Services	3
LES 481	Grants and Financial Aid Programs in Recreation	3
Total Hours Required		24

B. Therapeutic Recreation Area of Emphasis

HSL 150	Professional Activity Courses	4
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(select in consultation with departmental advisor.)

Select four hours from the following:

HSL 150	Rhythmic Activities for Special Populations	2
HSL 150	Camping for Special Populations	2
HSL 150	Sports Programs for Special Populations	2
HSL 150	Activity and Fitness Programs for the Elderly	2
Total Credits		4

LES	235	Leisure Education and Recreation for Special Populations	3
HPS	330	Anatomical Kinesiology	3
LES	333	Introduction to Therapeutic Recreation Services	3
HPS	334	Physiology of Exercise	3
LES	337	Group Leadership in Therapeutic Recreation	3
LES	359	Teaching the Handicapped to Swim	2
LES	437	Techniques in Therapeutic Recreation	3
Total Hours Required			24

C. General Recreation Area of Emphasis

HSL	150	Professional Activity Courses (select four hours in consultation with advisor)	4
LES	187	Introduction to Recreation and Leisure Services	2
LES	211	Leadership Techniques in Leisure Services	3
LES	215	Maintenance of Recreation Facilities and Equipment	3
LES	235	Leisure Education and Recreation for Special Populations	3
LES	341	Camping and Outdoor Recreation	3
LES	411	Recreation Program Construction and Control Processes	3
LES	413	Administration of Recreation and Leisure Resources	3
Total Hours Required			24

D. Aquatic Recreation Area of Emphasis

HSL	150	Professional Activity Courses	6
Select six hours from the following:			
HSL	150	Swimming	2
HSL	150	Advanced Lifesaving	2
HSL	150	Competitive Swimming and Diving	2
HSL	150	Synchronized Swimming	2
HSL	150	Water Polo	2
Total Credits			10
LES	187	Introduction to Recreation and Leisure Services	2
LES	215	Maintenance of Recreation Facilities and Equipment	3
HPS	216	Water Safety Instructor Certification	3
HPS	330	Anatomical Kinesiology	3
HPS	334	Physiology of Exercise	3
LES	359	Teaching the Handicapped to Swim	2
LES	455	Management of Aquatic Resources	3
Total Hours Required			25

E. Gerontology Activity Specialist Area of Emphasis

HSL	150	Professional Activity Courses	6
Select six hours from the following:			
HSL	150	Activity and Fitness Program for the Elderly	2
HSL	150	Camping for Special Populations	2
HSL	150	Sports Programs for Special Populations	2
HSL	150	Rhythmic Activities for Special Populations	2
Total Credits			6
LES	217	Recreation Arts and Crafts	2
LES	233	Advocacy and Social Action Programs for the Aged	3
LES	307	Health and Movement Problems in the Aging Adult	3
HPS	330	Anatomical Kinesiology	3
HPS	334	Physiology of Exercise	3
LES	463	Recreation Programs for the Elderly	3
Total Hours Required			23

NOTE: Minor programs will not meet requirements for professional registration with the Colorado Parks and Recreation Society or the National Recreation and Park Association or the National Council for Therapeutic Recreation Certification.

Human Services

The term *human services* has been applied to a family of occupations whose purpose is to help people with special problems. Human services has become one of the country's major industries.

The human services worker developed through this curriculum provides a core service in programs of rehabilitation and training

which emphasizes client self-help. Such programs conducted by local, state, and federal institutions and private agencies have created expanded opportunities for a variety of interesting new and existing careers. There are rapidly increasing demands for specialized staff in rehabilitation, corrections, welfare, mental health, mental retardation, employment, drug and alcohol counseling, and other social services. This is a challenging career field which provides the opportunity for personal satisfaction in helping those with mental health problems.

The Human Services Program is approved by the Council for Standards in Human Service Education.

Human Services Major for Bachelor of Science

The student must meet the college's general requirements for a bachelor's degree, meet the general studies requirements of the college, and complete the program of core courses listed below. Students who major in human services are not required to complete a minor.

			Semester Hours
HSW	101	Introduction to Human Services and Community Resources	4
HSW	104	Behavior Modification	4
HSW	202	Small Group Dynamics: Theory and Experiences	4
HSW	203	Introduction to Theory and Techniques in Interviewing and Psychotherapy	4
HSW	204	Family Functions, Dysfunction, and Therapy	4
HSW	205	Human Services Practicum I	8
HSW	206	Human Services Practicum II	8
HSW	432	Psychopathology and the Mental Health Clinician	4
HSW	479	Professional Internship	12
Total			52

*Students must consult with a faculty advisor to select appropriate general studies courses.

Electives Within Human Services Department (Approval of Advisor Required)

Select 16 hours from the following:

HSW	111	Introduction to Developmental Disabilities	4
HSW	211	Individual Programming for the Developmentally Disabled	3
HSW	311	Human Services for Handicapped Persons	4
HSW	323	Contemporary Diagnostic and Treatment Programs in Corrections	4
HSW	345	Crises Intervention and Legal Issues	4
HSW	347	Counseling the Substance Abuser	4
HSW	375	Holistic Health and High Level Wellness	4
HSW	411	Understanding the World of the Disabled Adult	2
HSW	436	Advanced Intervention Techniques	4
HSW	449	Contemporary Issues in Human Services	1-4
HSW	465	Group Facilitation and Group Counseling	4
HSW	468	Supervisory Techniques for Health Care	4
Total			16

Electives Inside or Outside of Human Services Department: 22

Community Service Development Area of Emphasis

This specialization is designed for students whose emphasis is on human resource development and administration in profit and nonprofit human services agencies and private industry. This track will emphasize the development and management of community services agencies in such endeavors as employee assistance programs, staff training, fund development, community relations, and labor arbitration and mediation. In addition, this emphasis area is suited for students who desire a graduate degree in social work administration or public administration. The advisement track consists of 68 credit hours of selected and required coursework with the approval of a faculty advisor from the courses listed below or other approved courses. Students must complete the core requirements for the human services major as described below and the 28 hour CSD program.

School of Professional Studies

Required Courses	Semester Hours
HSW Core (except for HSW 479, Professional Internship)	40
HSW Electives	8
Electives Outside HSW	8

Required Community Service Development Courses:

CSD 200	Introduction to Community Service Development	1
CSD 201	Principles of Community Service Development	4
CSD 300	Applied Development and Seminar I	2
CSD 321	Conflict Resolution and Decision-Making	2
CSD 341	Development and Use of Inexpensive Media	3
CSD 361	Financial Accountability of Nonprofit Programs	3
CSD 401	Assessment and Evaluation of Nonprofit Programs and Projects	3
CSD 402	Fundraising and Proposal Writing for Community Services	4
CSD 431	Development and Administration of Volunteer Programs	3
CSD 451	Politics of Agency Survival	3
Total CSD Hours Required		28
Total Hours Required for Emphasis		84

Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of Human Services and includes the required courses listed under the holistic health and wellness education multi-minor in the Degrees and Programs Available at MSCD section of this catalog.

Minor in Human Services

The minor offered by the department is designed to provide students with course experiences which are relevant to their educational and occupational goals. The student will choose a minimum of 24 semester hours, eight of which must be in the upper-division. The selection of coursework must be approved by the chair of the department.

Case Management Program

The program in case management is jointly administered and offered by the Human Services and Sociology Departments. The purpose of the program is to train individuals interested in performing the functions of a case manager.

Required Courses			Semester Hours
HSW	111	Introduction to Developmental Disabilities	4
HSW	211	Individual Programming for the Developmentally Disabled	3
SWF	302	Case Management in Social Welfare Services	4
SWF	378	Social Welfare Policy	3
Total			14

Institute for the Study of Drugs, Alcohol and Addictive Behaviors

Housed in the School of Professional Studies with its academic courses in the Department of Human Services, the Institute for the Study of Drugs, Alcohol and Addictive Behaviors (ISDAAB) offers two programs:

1. Counselor training program in drugs, alcohol and addictive behavior counseling (38 hours of prescribed coursework).
2. Bachelor of science degree in human services with emphasis on drug, alcohol and addictive behaviors.

Each student in the institute has a program individually tailored leading to the college degree and state certification as a drug/alcohol counselor, as well as a counselor for other addictive behaviors such as smoking, gambling, food disorders, etc.

In addition to classroom instruction, the drug, alcohol, and addictive behavior counselor training program utilizes metro Denver area facilities for experiential training of students. Many course offerings are outreach or community oriented. Graduates attain understandings, skills, and attitudes necessary to function as professional addiction counselors. Individuals interested in institute programs should contact the institute for further information and application at 556-2951 or 556-3105.

Baccalaureate Program

Emphasis Courses

(Includes HSW Core; Drug/Alcohol Counselor Training Program courses and electives selected with advisor):

HSW 101	Introduction to Human Services and Community Resources	4
HSW 104*	Behavior Modification	4
BIO 106*	Pharmacology of Drugs and Alcohol	3
HSW 147	Addictive Experiences: Drugs, Sex, Rock & Roll	3
HSW 202*	Small Group Dynamics: Theory and Experiences	4
HSW 203*	Introduction to Theory and Techniques in Interviewing and Psychotherapy	4
HSW 204*	Family Functions, Dysfunction, and Therapy	4
HSW 248*	Addictions Practicum I	6
HSW 249*	Addictions Practicum II	6
HSW 341	Alcoholism Family Counseling Advanced Topics	3
HSW 343*	Addictive Behaviors	3
HSW 344	Addictions Research Seminar	3
HSW 347*	Counseling the Substance Abuser	4
HSW 432	Psychopathology and the Mental Health Clinician	4
HSW 436	Advanced Intervention Techniques	4
HSW 449	Contemporary Issues in Human Services, Variable Topics	1-4
(May be taken more than once under different titles)		
HSW 465	Group Facilitation and Group Counseling	4
HSW 479	Professional Internship	12
Total Hours for Training Program		38
Total Hours Required for Emphasis		76-79

*Denotes 38 hours drug/alcohol counselor training program courses

Military Science (Army ROTC)

The Department of Military Science offers two Army ROTC programs leading to a commission in the active Army, Army Reserve or Army National Guard. Class work is conducted on the Auraria campus.

Four-Year Program. The standard four-year program consists of two phases, the basic and advanced courses. The basic course, normally completed during the freshman and sophomore years, is comprised of courses in the areas of military science, officer career development, leadership theory, and management. The advanced course coincides with the junior and senior academic years. Subject areas include leadership techniques, methods of instruction, tactics and unit operations, military law, history, national strategy, and Army policies. Completion of a six-week advanced camp in the summer is required prior to commissioning, with attendance at this camp normally between the junior and senior academic years.

Two-Year Program. An abbreviated two-year program consists of the same courses offered in the advanced course. However, both undergraduate and graduate students may become qualified for this program through the successful completion of a six-week summer basic camp.

Students should contact a professor of military science for specific requirements and options available based on each student's status at the time of program entry. Students who are veterans of military service, or participated in Junior ROTC or similar organizations may have a portion or all of the basic course requirements waived by a professor of military science.

Scholarships

Students selected for a U.S. Army scholarship receive full tuition at Metropolitan State College of Denver. It also pays a flat rate for books, laboratory fees and \$100 a month for up to 10 months a year. Students enrolled on campus, full-time may compete for two and three-year scholarships. All scholarships are open to both men and women, regardless of current involvement in ROTC.

Course Credit

Army ROTC course credit for graduation varies with each school. Students should contact the dean of their school to clarify the number of semester hours that will be accepted toward their degree program.

GRFD Guaranteed Reserve Forces Duty

This program provides for a guarantee that the student's obligation upon commissioning will be fulfilled as a member of the Army Reserves or Army National Guard instead of active duty.

Program of Study Four-Year Program

Semester
Hours

The following courses or an approved substitute are required during the first two years:

MIS	101*	Introduction to Military Science I	2
MIS	102**	Introduction to Military Science II	2
MIS	201*	Introduction to Leadership and Management I	3
MIS	202**	Introduction to Leadership and Management II	3

The following courses are required during the last two years of the program:

MIS	301*	Control Aspects of Small Unit Operations I	3
MIS	302**	Control Aspects of Small Unit Operations II	4
MIS	305	Summer Practicum (Advanced camp academic credit is optional)	5
MIS	401	Seminar in Officer Development I	3
MIS	402	Seminar in Officer Development II	3

*Fall semester

**Spring semester

Students desiring a commission through the ROTC program must consult with the professor of military science regarding required courses taught by other departments in the following subjects:

Management
Advanced Composition
Human Behavior
National security studies
American Military History
Foreign Language (Army scholarship requirement)

Nursing and Health Care Management

The purposes of the programs in the Department of Nursing and Health Care Management 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 Department of Nursing and Health Care Management offers two baccalaureate majors: (1) bachelor of science degree with a major in nursing and (2) bachelor of science degree with a major in health care management. An extended major in health care management-gerontology is also available. Health services courses are offered for non-health and health majors.

It is required that students desiring to enter programs in the Department of Nursing and Health Care Management 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. Up-to-date program materials are available in the Department of Nursing and Health Care Management.

Health Care Management

Metropolitan State College of Denver's undergraduate degree program in health care management prepares competent individuals for direct entry into middle management within the health care field. By combining courses in health care management with other disciplines such as marketing, computer information systems and management science, accounting and economics, the program gives students a strong foundation in management as it specifically relates to health care.

Health managers are employed in a variety of facilities and organizations: hospitals, nursing homes, health departments, educational institutions, health maintenance organizations, wellness programs, industrial health programs, the insurance industry, and governmental agencies at local, state, and national levels. All general requirements of the college for a bachelor of science degree must be met prior to graduation.

Educational Goals and Outcomes

The Baccalaureate Health Care Management Program has established the following outcomes for all graduates. The health care management graduate:

1. Effectively manages health delivery systems maximizing quality and quantity of services and human resources in the face of limited fiscal support.
2. Views health delivery as having multiple interdependent components within an environmental context.
3. Initiates and effectively manages change in a rapidly evolving health care environment.
4. 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.
5. Utilizes research and information science methodologies to solve management problems in health delivery systems.
6. Applies basic economic and fiscal principles in the management of health delivery systems.
7. 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 practicum experience (HCM 451), 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

			Semester Hours
Required Courses			
HCM	301	Health Care Organization	3
HCM	302	Management Principles in Health Care	3
HCM	303	Health Care Jurisprudence	3
CMS	201	Principles of Information Systems	3
MKT	300	Principles of Marketing	3
HCM	402	Personnel Management in Health Care	3
HCM	403	Financial Management in Health Care	3
HCM	404	Health Care Economics	3
NUR	420	Research, or PSY 331 Research Techniques, Experimental I, or SOC 360 Research in the Social Sciences or MKT 301 Marketing Research, or MKT 305 Business Research and Report Writing	3
HCM	451	Health Care Management Practicum	6
Total			33

Prerequisite Courses

ACC	201	Principles of Accounting I	3
ECO	202	Principles of Economics-Micro	3
MTH	121	Introduction to Statistics	4
or			

School of Professional Studies

PSY	311	Introduction to Statistics for Social and Behavioral Sciences	3
or			
		A Statistics Course	3-4
MTH	131	Finite Mathematics for the Management and Social Sciences	4

Minor

The student selects a minor with approval of the faculty. It is recommended that a minor in the School of Business be selected. Students who have an associate degree in a health occupation may substitute up to 24 hours of selected, approved, associate degree major courses in lieu of a minor toward the bachelor's degree. Course credit achieved through standardized examination by diploma nurse students is equivalent to associate degree, health occupation credit. This credit will be accepted in the same manner as associate degree major course credit, i.e., up to 24 hours.

Health Care Management/Gerontology Area of Emphasis

Health care management majors who desire work in institutions providing care to the elderly are encouraged to take the health care management-gerontology area of emphasis.

Students taking the extended major are required to take the health care management major in addition to the following courses. Students taking the extended major are not required to take a minor. This area of emphasis is in the process of being replaced by the new minor in gerontological services. Please see the director of the Institute for Gerontology.

		Semester	Hours
Required Courses			
Health Care Management major courses			33
HES	204	Introduction to Nutrition	3
SOC	104	Introduction to Gerontology	3
SOC	204	Aging in American Society	3
SOC	380	Health and Healers	3
PSY	295	Contemporary Issues in Psychology: Death and Dying	3
PSY	327	Adulthood and Aging	3
Total			51

Prerequisite Courses

Same as for the health care management major. PLUS:

PSY	101	Introductory Psychology	3
SOC	101	Introduction to Sociology	3

Minor in Health Care Management

		Semester	Hours
Required Courses			
HCM	301	Health Care Organization	3
HCM	302	Management Principles in Health Care	3
HCM	303	Health Care Jurisprudence	3
HCM	402	Personnel Management in Health Care	3
HCM	403	Financial Management in Health Care	3
CMS	201	Principles of Information Systems	3
Total			18

Prerequisite Course

ACC	201	Principles of Accounting I	3
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Holistic Health and Wellness Education Multi-Minor

The multi-minor may be arranged through the Department of Nursing and Health Care Management and includes the required courses listed under the holistic health and wellness education multi-minor in the Degrees and Programs Available at MSCD section of this catalog.

Health Services

This group of courses is designed to meet special needs of non-health as well as health majors. Effort is made to provide students with content relevant to individual needs.

HES	105	Dynamics of Health*	3
HES	204	Introduction to Nutrition*	3
HES	307	Parental Health Care Issues	3
HES	360	Ethical Decision Making in Health Care	3
HES	380	Clinical Pathophysiology	4
HES	382	Health Care Counseling	3

*Required in multidisciplinary minor in holistic health and wellness education.

Nursing

The purposes of the Baccalaureate Registered Nurse Program are to provide the diploma and associate degree nurse graduate with a broadened educational base for improvement of nursing practices, preparation for meeting future health care needs of society, preparation for graduate education in nursing, and opportunity for continuous personal growth and professional development.

Educational Goals and Outcomes

The Baccalaureate Registered Nurse Program has established the following exit behaviors for all graduates:

The student will be able to:

- demonstrate, through nursing practice, a perception of individuals as living, open systems influenced by their biological, psychological, sociological, and cultural environment as they strive for high-level wellness
- use discriminatory judgment in applying the nursing process of assessing, analyzing, planning, implementing and evaluating to help clients prevent illness and maintain and promote high-level wellness
- collaborate with clients and interdisciplinary teams both as a consumer and as a provider of care, striving to achieve optimum health care delivery within an ethical framework
- act as a resource person in a variety of settings
- act as a change agent when change is indicated
- assume responsibility for clinical teaching to promote high-level wellness
- demonstrate a systematic approach to the investigation of health care problems and use the results of scholarly research to promote high-level wellness
- accept accountability for clinical practice and continued learning by acquiring knowledge and skills which meet the changing needs of self, clients, professional nursing, and society.

Admission Requirements

In order to qualify for admission to the Baccalaureate Registered Nurse Program at Metropolitan State College of Denver, the student must:

1. Be a graduate from a state accredited associate degree or diploma program in nursing.
2. Be currently licensed as a registered nurse in Colorado.
3. Have a minimum of one year full-time clinical working experience or its equivalent as a registered nurse within the past three years.
4. Have current Basic Life Support Certification.
5. The Nursing Program is a full participant in the Colorado Nursing Articulation Agreement. This agreement facilitates academic progress from one program to another beginning January 1991. All R.N.s from Colorado schools and out-of-state schools accredited by the NLN need no entrance testing (ACT, PEPs). Out-of-state students must request written verification from the School of Nursing that the school was NLN accredited at the time the student graduated. The verification must be sent directly from the School of Nursing to the Department of Nursing and Health Care Management, MSCD.

6. Out-of-state R.N.s from non-NLN accredited schools need counseling regarding completion of ACT PEP examinations (Proficiency Examination Program). These examinations may be completed before or during NUR 311. Twenty-four semester hours credit are awarded upon successful completion of the three exams.

Adult Nursing (#554) Passing standard score: 45

Maternal and Child Nursing (#453) Passing standard score: 45

Psychiatric/Mental Health Nursing (#503) Passing standard score: 45

Directions for obtaining these examinations will be provided during student advising. They may be repeated until a passing score is obtained. The student must be enrolled in a baccalaureate nursing program within three years of taking the ACT PEPs or they must be retaken.

Applicants who successfully pass the PEP entry examinations will receive eight semester hours of lower division nursing credit per examination for their prior nursing knowledge.

Passing scores on all PEP nursing examinations must be on file in the nursing office prior to the student's enrollment in courses beyond NUR 311. Please check with the Department of Nursing and Health Care Management for test registration packets and study guides.

7. The college's General Studies Program is affected by the Colorado Nursing Articulation agreement. Please check with your nursing advisor to determine your General Studies Program.
8. Carry nurses' liability insurance in the amount of \$1,000,000/\$1,000,000.
9. Health insurance is strongly recommended.
10. Current immunizations for diphtheria, tetanus, polio, and MMR (measles, mumps, rubella) are required for courses in which there is client contact.
11. Negative tuberculosis screening (PPD or Mantoux or negative chest X-ray) is required for classes in which there is client contact.

Work obligations of students are recognized by the provision of day and evening classes. It is the responsibility of students to establish realistic academic work loads (in light of work and home obligations) which permit them the time needed to satisfactorily meet the course and program requirements. All students are strongly urged to seek academic advising prior to registration each semester.

Requirements for Graduation

1. All general requirements of the college for a bachelor of science degree must be met prior to graduation.
2. Students may take a maximum of five years to complete the upper-division program in nursing course requirements (NUR prefix courses only).
3. Students must have passed the nursing program entry examinations.

Nursing Major for Bachelor of Science

Required Courses

	Semester Hours
NUR 311 Transitions in Nursing	3
NUR 355 Leadership	3
NUR 370 Assessment	4
NUR 385 Clinical Teaching Methods	3
NUR 420 Research	3
NUR 440 Comprehensive Community Health	5
NUR 441 Comprehensive Community Nursing	4
NUR 485 Nursing Process: Application	5
Total	30

Support Courses

ANT 348	Cultural Diversity in Health and Illness	3
HES 360	Ethical Decision Making in Health Care	3
HES 380	Clinical Pathophysiology	4
HES 382	Health Care Counseling	3
HCM 303	Health Care Jurisprudence	3
HCM 404	Health Care Economics	3
	A computer course	3

and

A statistics course 3-4

Total Semester Hours Required 25-26

Prerequisite

PEP Examinations or exempted per Colorado statewide articulation model 24

Nursing Electives

NUR 351	Nursing Diagnosis	1
NUR 410	Critical Care Nursing	4
NUR 476	Nursing Theories	2

Institute for Gerontology

The Institute for Gerontology provides a multidisciplinary approach to address the needs of the elderly in the Denver metropolitan area. The institute is involved in sponsoring conferences and workshops.

The institute encourages learning opportunities for elders, advises students on academic preparation for professional careers in human services for the field of aging, and promotes continuing education for professionals in the field. Interaction with community service agencies and interdisciplinary cooperation among the departments of the college is facilitated by the Institute for Gerontology.

Students should consult with the specific academic department for advising in the disciplines of health care management, leisure studies, sociology and psychology.

Gerontological Services Minor

This interdisciplinary minor emphasizes the knowledge and skills that entry level professionals utilize in working with older adults, and the management of resources that are utilized in this rapidly expanding field of service. This applied, interdisciplinary curriculum complements a variety of academic majors and professionally oriented programs on campus. The minor requires that a practicum, or field experience involving older adults be taken after all core courses have been completed, unless such a requirement has been met, either by the major, or through previous experience. The minor is administered by the Institute for Gerontology.

Required Courses

	Hours
SOC 104 Introduction to Gerontology	3
PSY 327 Adulthood and Aging	3
SWF 303 Social Services for Adults and the Aging	4
LES 233 Advocacy and Social Action Programs for the Aged	3
SPE 476 Communication and the Elderly	3
HCM 302 Management Principles in Health Care (Emphasis on long-term care continuum)	3
HES 452 Internship in Gerontology (or an approved equivalent)	3
Total	22

Electives: Upon advisement, the following courses may be taken to substitute for previously taken core courses or for specific career objectives.

SOC 304	Contemporary Issues in Gerontology	3
PSY 295	Death and Dying	3
LES 307	Health and Movement Problems in the Aging Adult	3
SWF 302	Case Management in Social Welfare Services	4

Course Descriptions

Accounting

ACC 201-3 Principles of Accounting I (3 + 0)

Prerequisites: A college level mathematics course or permission of instructor

Fundamental principles of accounting with emphasis on the double entry system; theory and practice in transaction analysis; familiarization with the basic financial statements.

ACC 202-3 Principles of Accounting II (3 + 0)

Prerequisite: ACC 201

Continuation of ACC 201 emphasizing partnerships and corporations. An introduction to branch accounting, cost accounting, and financial statements for management analysis.

ACC 203-1 Integrated Accounting on the Microcomputer (1 + 0)

Prerequisite: ACC 202

This course presents the major areas of an accounting system on the microcomputer — general ledger, depreciation, accounts receivable, accounts payable and payroll.

ACC 302-3 Managerial Accounting (3 + 0)

Prerequisites: ACC 201 and 202

For non-accounting majors. Covers cost behavior and control, budgeting, standard costs, analysis of variances. Credit not allowed for both ACC 302 and ACC 340.

ACC 308-3 Small Business Taxation (3 + 0)

A study of state and federal income taxes as they apply to small business. Also includes property, social security, sales, and unemployment taxes. Examines the tax implications of selecting different forms of organization (sole proprietorship, corporation, or partnership) for small businesses. Credit not allowed for both ACC 308 and ACC 309.

ACC 309-3 Income Tax I (3 + 0)

Prerequisite: ACC 202 or permission of instructor

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 310-3 Income Tax II (3 + 0)

Prerequisite: ACC 309 or permission of instructor

Continuation of ACC 309 with an emphasis on the taxation of organizational tax entities, including partnerships, corporations, and subchapter "S" corporations.

ACC 311-3 Volunteer Income Tax Assistance (VITA) (2 + 2)

Prerequisite: ACC 309

This tax course involves the preparation of state and federal income tax returns for low-income and elderly taxpayers. Students do actual preparation at various sites in the Denver area.

ACC 320-3 Governmental Accounting (3 + 0)

Prerequisite: ACC 202 or permission of instructor

A study of the accounting used in a municipality with reference to state and federal governments. Review of municipalities' budgets and municipalities' annual reports. Orientation in the concepts of budgetary control as a matter of law and public administration theory.

ACC 330-3 Introduction to Accounting Systems (3 + 0)

Prerequisites: ACC 202 and CMS 201, or permission of instructor

Analysis of principles and types of tools available for the design and implementation of an accounting system. Use of case studies and various media to illustrate the manual and computer-related accounting system problems arising in various organizations and situations.

ACC 340-3 Cost Accounting (3 + 0)

Prerequisites: ACC 202 and MTH 131

Fundamentals of cost behavior, analysis of variance for materials, labor, and overhead. Includes budgeting, absorption and direct costing, job order, and process cost systems. Credit not allowed for both ACC 302 and ACC 340.

ACC 341-3 Advanced Cost Accounting (3 + 0)

Prerequisites: ACC 340, CMS 201, and CMS 332

Concepts and procedures applicable to cost allocation, capital budgeting, joint costing, and inventory management. Includes break-even analysis, performance measurement, transfer pricing, and mathematical and statistical analysis of cost behavior for control and decision-making.

ACC 351-3 Intermediate Accounting I (3 + 0)

Prerequisite: ACC 202

In-depth study of basic accounting principles with emphasis on current and long-term assets and current liabilities.

ACC 352-3 Intermediate Accounting II (3 + 0)

Prerequisite: ACC 351

Continuation of ACC 351. In-depth study of basic accounting principles with emphasis on long-term liabilities, stockholders' equity, and special problems.

ACC 365-2 (FIN 365) Electronic Spreadsheets on the Microcomputer (2 + 0)

Prerequisite: FIN 330

This course teaches the student how to create and use electronic spreadsheets (Lotus 1-2-3) on the microcomputer. Credit will be granted for only one of these courses.

ACC 409-3 Tax Procedure and Research (3 + 0)

Prerequisite: ACC 310 or permission of instructor

An in-depth study of tax procedure from preparation of the various returns to audit by the IRS. Also, the tools used in tax research are explained and illustrated. A research paper dealing with a major tax problem is required of each student.

ACC 410-3 Tax Planning (3 + 0)

Prerequisite: ACC 310 or permission of instructor

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 which can often be utilized to reduce an individual's personal income taxes.

ACC 420-3 Auditing (3 + 0)

Prerequisite: ACC 352

Auditing techniques and principles applied by certified public accountants and internal auditors in examining financial statements and verifying underlying data.

ACC 430-3 Advanced Auditing (3 + 0)

Prerequisite: ACC 420 or permission of instructor

An in-depth study of the practice of internal auditing, including statistical sampling, and EDP auditing.

ACC 445-3 Oil and Gas Accounting (3 + 0)

Prerequisite: ACC 202

A survey of the accounting practices relating to predrilling exploration, development, production, and refining in the petroleum industry.

ACC 451-3 Advanced Accounting I (3 + 0)

Prerequisites: ACC 351 and ACC 352, or permission of instructor

An in-depth study of accounting for price-level adjusted financial statements, accounting theory, real estate, interim reporting, segmental data, partnership, and fiduciary transactions.

ACC 452-3 Advanced Accounting II (3 + 0)

Prerequisites: ACC 351 and ACC 352, or permission of instructor

A comprehensive study of business combinations and consolidated financial statements, including branches and foreign operations.

ACC 460-3 Contemporary Accounting (3 + 0)

Prerequisites: Senior standing and 18 semester hours of courses in accounting

Comprehensive coverage of current literature in accounting with emphasis on recent AICPA and FASB publications.

Aerospace Science

AES 110-6 Aviation Fundamentals (6 + 0)

Prerequisites: AES 110, MTR 141, and AES 170 are recommended to be taken concurrently

This course presents the fundamentals of aviation to the beginning student. It 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. The class prepared the student for the Federal Aviation Administration (FAA) private pilot written examination.

AES 150-2 Private Flight (1 + 2)

Prerequisites: The student should enroll in AES 110, AES 170, and MTR 141, or show evidence of having passed the FAA written examination

This is a course designed to enable a student to secure a private pilot's certificate. This requires a minimum of 35 hours of flight time, approximately 20 being dual and 15 solo. The FAA private pilot's license must be obtained to receive credit for the course.

AES 170-2 Simulator-Instruments and Navigation (1 + 2)

Prerequisites: AES 110, MTR 141, and AES 170 are recommended to be taken concurrently

A study of attitude instrument flight fundamentals: scanning, interpreting, and controlling. These skills are developed in the simulator along with the application of basic radio navigation theory. Wind correction angles are applied to basic flight patterns. VOR, ADF, ILS, DME, and transponder operation is developed. Simple holding patterns are introduced.

AES 175-2 Simulator-Basic Navigation-VFR Cross Country Flight (1 + 2)

Prerequisites: AES 170, private pilot certificate or permission of the instructor

The course is a review of attitude instrument flight fundamentals and flight navigation with VOR, DME, and ADF. The course is recommended for students with flying experience or for students who want additional simulator time between AES 170 and AES 270.

AES 180-6 Commercial/Instrument Ground (6 + 0)

Prerequisites: AES 110 and MTR 141 or permission of instructor

This course consists of a study of aeronautics, regulations, meteorology, and instrument procedures in preparation for the FAA commercial and instrument written exams.

AES 205-3 Aviation History and Future Development (3 + 0)

Covers the growth and development of aviation through gliders and balloon flights to the modern jets and space age. Includes the effects of wars and inventions of internal combustion engine and turbojets on the progress of aviation. Discusses significant personnel, flights and aircraft in tracing the advancement of general, commercial and military aviation. Includes future development in the aviation field.

AES 210-3 Fundamentals of Aviation and Space Technology (3 + 0)

An introductory survey course for non-aerospace science majors. Course will include such topics as basic aeronautics, meteorology, navigation, rules of flight, high speed aerodynamics, physiology of flight, human beings in space, history of aviation, and career opportunities.

AES 222-3 Flight Dispatcher/Load Planning (3 + 0)

Prerequisite: AES 110

This course prepares a student to work as a dispatcher for an airline. Regulations required for operations are a vital area of the course. Methods of decision making and safety and weather conditions relating to dispatch decisions are studied.

AES 250-3 Instrument Flight I (1 + 4)

Prerequisite: Private pilot's certificate or permission of instructor

The course consists of flight training required to prepare for the FAA Instrument Rating. The rating is required for course completion.

AES 270-2 Simulator-Cross Country Flight (1 + 2)

Prerequisite: AES 170 or permission of instructor

IFR cross-country flights are planned and flown in the simulator using radio navigation fundamentals. Flights include ATC clearances, determining position using radio aids, holding patterns, and approaches.

AES 300-3 Aircraft Systems and Propulsion (3 + 0)

Prerequisites: AES 110, or FAA Private Pilot Certificate, and PHY 125, or permission of instructor

The course is an introduction to aircraft nomenclature, design, features, systems, and their components. The theory, components, instrumentation, and operation of internal combustion and turbojet engines are covered. Aircraft systems including fuel, electrical, hydraulic, and pneumatic are discussed.

AES 320-3 National Airspace Operations (3 + 0)

Prerequisite: AES 110

The course examines each element of the National Airspace System and the requirements for operation within the system. Social/political/environmental factors, as well as technological developments and economic forecasts, are studied as the basis for justifying facilities, automation, electronic improvements throughout the system. System demand and FAA regulations are discussed as they specifically apply to the control and use of the system, both in the near and longterm.

AES 321-3 Aviation Economics and Regulations (3 + 0)

Prerequisite: Junior status or permission of the instructor

The course examines growth and contemporary organization of trunk and supplemental airlines. The changing role of economic governmental regulatory agencies is examined as it affects the carriers. Labor unions and general economy are considered.

AES 322-3 Aviation Law and Risk Management (3 + 0)

Prerequisite: AES 321 or permission of instructor

The course goal is to provide the middle manager with the understanding of liability problems and aviation insurance coverage. FBO, manufacturer, operator liability cases are reviewed. An overview of fundamental aviation law, insurance risks, and contract terminology necessary to understand aviation binders is included.

AES 323-3 Commuter Airline Management (3 + 0)

Prerequisites: Junior/senior status or permission of instructor. AES 321 is a prerequisite or corequisite

The course consists of studies in integrating local air transportation with the National Air Transportation System; forecasts in growth of the commuter industry; interfaces with domestic, trunk, supplemental and regional service air carriers; airport ground facilities and equipment needs; terminal area airspace problems; equipment and finance considerations.

AES 324-3 Airline Planning and Management (3 + 0)

This course is designed to use current airline growth experience for studying the planning, management, and marketing techniques which shape an air transportation company's airplane equipment, route network, and schedule. These processes would then be applied to a simulated Rocky Mountain regional airline.

AES 352-3 Commercial Flight (1 + 4)

Prerequisite: AES 250 or instructor permission

The course consists of the flight training required to prepare for the FAA Commercial Pilot Certificate. The certificate is required for course completion.

AES 353-3 Aerodynamics (3 + 0)

Prerequisites: AES 300 and PHY 125

Study of basic principles of aerodynamics including airfoil shapes and aerodynamic forces, airplane performance, stability and control, strength limitations and application of aerodynamics to specific flight situations. Included are flight performance with air flow in sub, trans and supersonic envelopes.

AES 370-2 Simulator-IFR Procedures and Approaches (1 + 2)

Prerequisite: AES 270 or permission of instructor

A continuation of AES 270. Flight Planning, clearances, enroute flight, and approaches become more complex. Inflight route changes and missed approaches are included.

AES 385-3 Human Factors and Physiology of Flight (3 + 0)

Prerequisite: Junior standing or permission of instructor

A study of human factors and physiological effects and problems of flight. These problems are studied from the standpoint of the general aviation pilot as well as more advanced space flight.

Course Descriptions

AES 387-3 Aircraft Accident Investigation (3 + 0)

Prerequisite: Junior/Senior standing or instructor permission

Aircraft accident/incident investigation, analyses, reporting with structural, systems, organization, and human factors analyses; problems in report writing; laboratory and field investigation under the supervision of NTSB and/or FAA personnel.

AES 404-3 Aircraft Performance (3 + 0)

Prerequisites: AES 110, PHY 125, Junior status

Performance of jet and propeller-powered aircraft are studied. Flight profiles are covered with emphasis on aircraft capabilities, limitations, and determination of speeds and power or thrust settings for various conditions of flight. Weight and balance performance charts are examined.

AES 413-4 Flight Engineer Duties and Responsibilities (4 + 0)

Prerequisites: Junior or senior status, AES 353, AES 404 and the FAA Commercial Certificate with Instrument Rating are prerequisites; AES 414 is a corequisite

The course gives students a working knowledge of B-727 operating procedures including external and pre-flight engine start and in-flight procedures. It also provides instruction in irregular and emergency procedures and in-flight engineer duties and responsibilities as set forth in FARs.

AES 414-4 B-727 Systems (4 + 0)

Prerequisites: Junior or senior status, AES 352 or FAA commercial and instrument ratings. Normally taken with AES 353, 404, and 413.

This course gives students an operational knowledge of the various B-727 systems. This includes power plant, fuel, electrical, hydraulic, pneumatic, air conditioning, pressurization, avionics, instruments, flight controls, fire protection, and ice and rain protection.

AES 420-3 Airport Planning (3 + 0)

Prerequisites: AES 321, junior status, or permission of instructor

This course is designed to expose 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 421-3 Airport Management (3 + 0)

Prerequisites: AES 321, 420, junior status, or permission of instructor

A study of the modern airport and the factors involved in its management. The various management functions of administration, finance, capital finance, operation, maintenance, and public relations are analyzed.

AES 423-3 FBO and Aircraft Marketing (3 + 0)

Prerequisites: AES 420, senior status or permission of instructor

A study of fixed base operation. Local facilities are used as model for learning financial, construction, equipment, staffing, operating costs, as well as marketing techniques in sales and closing in light and medium class aircraft. Field trips and guest lectures from industry are included.

AES 424-3 Air Cargo (3 + 0)

Prerequisite: Junior or senior status

An overview of the air cargo industry to include: the history of development; air shipments economy; review of legislation and regulatory agency trend; cargo aircraft now in use; air freight forwarding; current air freight terminal operations problems.

AES 437-3 Advanced Navigation Systems (3 + 0)

Prerequisite: Permission of instructor

This course is a follow-up to AES 110. It further develops dead-reckoning skills and introduces celestial concepts as a basis for study of the advanced navigation systems: Inertial, Loran C., Omega, GPS (global positioning system), and various types of radar.

AES 450-1 Flight Multi-Engine (1 + 1)

Prerequisites: AES 352, or FAA commercial pilot rating. Student must have at least a second class FAA medical certificate.

Covers multi-engine aircraft operations. A minimum of 10 hours of dual flight time is required. The FAA multi-engine rating must be obtained to receive credit for the course.

AES 451-1 Flight Instructor (1 + 1)

Prerequisites: AES 352, 370, 470, and a second class FAA medical certificate

Provides the fundamentals of flight instruction and the basic aeronautical knowledge necessary for the flight instructor certificate. Fifteen hours of dual flight time is required and the flight instructor certificate must be obtained in order to receive credit for the course.

AES 452-1 Flight Instructor-Instrument (1 + 1)

Prerequisites: AES 352, and a second class FAA medical certificate

Provides basic aeronautical knowledge and experience which the instrument flight instructor must have. Ten hours of dual flight time is required and the FAA rating must be obtained in order to receive credit for the course.

AES 453-1 Flight Instructor-Multi-Engine (1 + 1)

Prerequisites: AES 452 and second class FAA medical certificate

This course provides the basic aeronautical knowledge and experience relative to multi-engine flight instruction which the prospective multi-engine flight instructor must have as well as the fundamentals of flight instruction. Fifteen hours of dual flight time is required. The FAA rating must be obtained in order to receive credit for the course.

AES 455-1 Flight Helicopter (1 + 1)

Prerequisites: AES 352, permission of instructor, and a second class FAA medical certificate

Studies include helicopter systems, aerodynamics, powerplants, flight characteristics, and helicopter operations. The FAA rating must be obtained in order to receive credit for the course.

AES 457-1 Airline Transport Pilot (1 + 2)

Prerequisites: AES 352, first class medical eligibility as required in Federal Aviation Regulations, Part 61.151. Permission of instructor

Completion of credit for this course requires 1,500 hours of flight time, 500 of which is cross-country, 100 hours night flying and 75 hours of instrument flight. Course involves knowledge of navigation, weather, FARs, radio communications, weight distribution on aircraft and loading.

AES 458-4 Turbojet Flight Engineer (2 + 4)

Prerequisite: FAA flight engineer written examination

This course consists of a DC-8 ground school. Approximately 15 hours of 2nd officer training and a flight check in a DC-8 aircraft.

AES 460-3 Space Flight (3 + 0)

Prerequisites: PHY 125, MTH 131, and AES 300 or permission of instructor

The fundamental laws of astrophysics are studied. Basic concepts of the universe, astronautics, re-entry, propulsion, and launch vehicles are treated. Investigation of space flight follows. Topics include crewed flight, uncrewed flight, space stations, space planes, and space policy. The course concludes with computer simulation. Students form teams and design and build a space station using the latest aerospace research and development techniques. The design project stresses real world constraints and enhancement of interpersonal skills.

AES 470-3 Advanced Simulator and Navigational Computers (1 + 4)

Prerequisite: AES 370 or permission of instructor

A continuation of AES 370. Includes IFR cross-country flights involving deteriorating weather, radio failure, destination changes enroute, and the use of the CR navigation computer in solving complex problems.

AES 476-3 Aerospace Education (3 + 0)

Prerequisite: Permission of instructor

Provides background in aircraft propulsion systems and principles of flight for teaching mini-courses in elementary schools and aerospace courses in secondary schools. Acquaints the student with aeronautical terms, forces acting upon aircraft in flight, and an elementary understanding of navigation.

AES 477-2 Methods of Teaching Aerospace Education (2 + 0)

Prerequisite: AES 476 or permission of instructor

Techniques and methodology used in applying basic aerospace fundamentals to elementary, secondary, and industrial classrooms. Use of special aerospace media such as instrument flight simulators, models, radio navigational aids boards, and mockups.

AES 478-2 Curriculum Development in Aerospace Education (2 + 0)

Prerequisites: AES 476, 477 and permission of instructor

Discussions of 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 486-3 Aviation Safety (3 + 0)

Prerequisites: AES 300, Junior status or permission of instructor

The principles of aviation accident prevention and aviation operations safety are presented with specific practices, procedures, methods and organization. The history of aviation mishap experience with legal ramifications is presented along with those methods used which have proven to be useful in preventing aircraft mishaps. Human factor; contemporary investigation organization and sources of assistance; analysis; analysis of aerodynamics application, fatigue, and stress are presented applying inferential reasoning as a method of developing critical thinking.

AES 491-3 Aviation Management Problems and Job Targeting (3 + 0)

Prerequisites: Aerospace science major; senior status or permission of instructor

This seminar 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.

African American Studies

*Please see an advisor for a current listing of all MSCD courses designated as multicultural for general studies requirements.

AAS 101-3 Introduction to African American Studies (3 + 0)

Prerequisite: Minimum performance standard scores on reading and writing preassessment placement tests.

This course presents an overview/survey of African American studies—the many facets of the black experience in this country and the discipline of African American studies. Special emphasis is given the black perspective. (General Studies Course - Level II, Social Sciences; Multicultural*)

AAS 108-3 Readings in African American Studies (3 + 0)

This self-paced course is based on a selected readings list in African American studies books, magazines, newspapers.

AAS 113-3 (HIS 194) Survey of African History (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course surveys the major developments on the African continent from ancient times to the modern period. The course focuses on political and cultural developments in African civilizations from ancient Egypt to the contemporary period. Credit will be granted for only one of these courses. (General Studies Course - Level II, Historical; Multicultural*)

AAS 200-3 (SOC 200) Social Movements and the Black Experience (3 + 0)

Prerequisite: AAS 101, SOC 101, or permission of instructor

A socio-cultural analysis and interpretation of the nature, cause and consequence of black social movements in the United States ranging from the slave period to the present time. Particular attention will be given to the Civil Rights Movement of the 1950s and 1960s. Credit will be granted for only one of these courses.

AAS 213-3 (HIS 295) West African Civilizations (3 + 0)

Prerequisites: Satisfaction of ENG 101 and the Level I communication requirement

This course surveys history and cultures of West Africa from 1000 A.D. 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 of these courses. (General Studies Course - Level II, Historical; Multicultural*)

AAS 220-3 (PSC 220) Politics and Black People (3 + 0)

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 only be granted for one of these courses.

AAS 230-3 (ANT 235) African Peoples and Cultures (3 + 0)

This course examines traditional cultures of African peoples. The course gives added understanding of culture and people in relation to human problems and experiences. Credit will be granted for only one of these courses.

AAS 313-3 Readings in African History (3 + 0)

Prerequisite: AAS 113 or permission of instructor

This course provides the opportunity for the students to explore important writings in a selected subject area of African history. Through the selections read, students will advance their knowledge of the materials and information related to the field of African History.

AAS 315-3 (EDU 313) Education of the Black Child (3 + 0)

This course is designed to develop an awareness of what it is to be black in this country, and how racism has affected education; of what this means in terms of black children, specifically. This course emphasizes community resources, motivational techniques for creative, understanding, teaching. Credit will only be granted for one of these courses.

AAS 324-3 (ENG 324) African American Literature (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

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 of these courses.

AAS 330-3 (SOC 314) The Black Community (3 + 0)

Prerequisite: AAS 101 or AAS/SOC 200, or permission of instructor and satisfaction of Level I General Studies course requirements

This course 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. The local, national, and international black community will be emphasized. Classic and contemporary black community studies will be examined. Credit will be granted for only one of these courses. (General Studies Course - Level II, Social Sciences; Multicultural*)

AAS 340-3 (PSC 340) 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. Credit will be granted for only one of these courses.

AAS 355-3 (SOC 344) The Black Family (3 + 0)

Prerequisites: AAS 101 or SOC 101 and satisfaction of Level I General Studies course requirements

This course provides an in-depth exploration of the black family as a social institution. Specific emphasis is placed on the historical roots of the black family and how the African influence is still enmeshed in the functioning of the family in modern society. The factors responsible for the ability of the black family to meet the challenge of a changing society will be examined. Credit will be granted for only one of these courses. (General Studies Course - Level II, Social Sciences)

AAS 357-3 (HIS 357) African American History I (3 + 0)

Prerequisites: HIS 121, HIS 122, 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 United States to 1876. Credit will be granted for only one of these courses.

Course Descriptions

AAS 358-3

(HIS 358) African American History II (3 + 0)

Prerequisites: HIS 121, HIS 122, or permission of instructor

Continues a study of the role of the people of African heritage in the United States from 1876 to the present. Emphasis is placed on understanding the historical tradition which gives rise to current dilemmas facing America. Credit will be granted for only one of these courses.

AAS 370-3

(PSY 370) Psychology of Racism and Group Prejudice (3 + 0)

Prerequisites: Three hours in African American Studies, three hours Psychology, or permission of instructor

An in-depth survey of tensions between racial, ethnic, religious, and other groups, with an emphasis on the psychological factors that condition such tensions. In addition, psychological theories about the origin and maintenance of racist attitudes and prejudice will be discussed. Credit will be granted for only one of these courses.

AAS 391-3

(PSC 391) African Politics and Government (3 + 0)

Prerequisites: AAS 113, AAS 230, 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 of these courses.

AAS 440-3

(PSC 440) South African Politics (3 + 0)

Prerequisites: AAS 113, AAS 391, or permission of instructor

This course presents an in-depth study of the South African political system, its historical development and contemporary operation. Credit will be granted for only one of these courses.

AAS 449-3 Contemporary Issues in African American Studies (3 + 0)

Prerequisites: AAS 101 and Junior or Senior Standing

This course provides an in-depth study of selected issues that significantly impact the black people in the United States. Topics vary and the course may be repeated for credit with the permission of the institute director.

AAS 460-3

(PSY 460) Black Psychology (3 + 0)

Prerequisite: Six hours in African American Studies, six hours in Psychology, or permission of instructor

This course will critically examine the major concepts and models in psychology in terms of their applicability to blacks. New directions and foci in black psychology will be explored, as well as the theories, writings, and research of leading black psychologists. Credit will be granted for only one of these courses.

AAS 470-3

(HSW 470) Seminar in Black Mental Health (3 + 0)

Prerequisite: Upper-division status

This course focuses on the application of mental health theory and principles to black clients in urban settings. Emphasis will be given to an intense and comprehensive consideration of theoretical perspectives and research concerning the problem of black mental health, and applications to its assessments and treatment. Credit will be granted for only one of these courses.

AAS 485-3 Research Seminar in African American Studies (3 + 0)

Prerequisite: Six hours of upper-division courses in African American studies

This course provides the opportunity for refining research skills. Students will participate in planned seminar sessions and conduct in-depth research on selected topics under close supervision of a faculty member.

Air Force Aerospace Studies - Reserve Officer Training Corps

AFR 103-1 Development of Air Power I (1 + 1)

Study of the development of airpower, management and use of aerospace power today, and use of future crewed aircraft and spacecraft. The laboratory

introduces the student to leadership experiences in a practical, supervised training setting, which includes field trips to Air Force installations.

AFR 104-1 Development of Air Power II (1 + 1)

Prerequisite: AFR 103 or consent of the program director
Continuation of AFR 103.

AFR 203-1 U. S. Military Forces I (1 + 1)

Prerequisite: AFR 104 or consent of the program director

A survey course describing the Air Force in the contemporary world through a study of the total force structure, strategic offensive and defensive forces, general purpose forces, and aerospace support forces. Laboratory involves a study of Air Force customs and courtesy, drill and ceremonies, career opportunities, and life and work of an Air Force junior officer.

AFR 204-1 U. S. Military Forces II (1 + 1)

Prerequisite: AFR 203 or consent of the program director
Continuation of AFR 203, plus assigned project reports.

AFR 301-3 USAF Management and Leadership I (3 + 1)

Prerequisite: AFR 104 or consent of the program director

Individual motivation and behavioral processes, leadership, management, communication and group dynamics are studied and applied in actual case studies. Communicative skills development is stressed. Laboratory provides opportunity for application and testing of management/leadership training.

AFR 302-3 USAF Management and Leadership II (3 + 1)

Prerequisite: AFR 301 or consent of the program director

Continuation of AFR 301. Basic managerial processes are emphasized, while group discussions, case studies, and role playing as learning devices are employed; continuation of communicative skills development.

AFR 401-3 National Security Forces I (3 + 1)

Prerequisite: AFR 302 or consent of the program director

The armed forces as an integral part of society. Special themes include societal attitudes, military law, professionalism, and U. S. defense strategy, while developing communicative skills.

AFR 402-3 National Security Forces II (3 + 1)

Prerequisite: AFR 401 or consent of the program director

Continuation of AFR 401. 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 and uniform code of military justice.

Anthropology

ANT 101-3 Physical Anthropology and Prehistory (2 + 2)

Prerequisite: Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

This is an introductory course covering the basic concepts and methods of physical anthropology and archaeology. It explores the 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 first-hand experience in identifying fossil hominids, lithic technology, and human variation. (*General Studies Course - Level II, Natural Sciences*)

ANT 131-3 Introduction to Cultural Anthropology (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

The course provides a comparative perspective on human behavior and thought by exploring a variety of world cultures in the major domains of kinship, social organization, language, ecological adaptation, economics and religion. The applied aspects of anthropology are also investigated. (*General Studies Course - Level II, Social Sciences*)

ANT 210-3 Human Evolution (3 + 0)

Prerequisite: ANT 101 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 will be presented as living history in light of what fossils reveal about the behavior and social organization of the populations they represent.

ANT 233-3 Cross-Cultural Communication (3 + 0)

Prerequisites: ANT 131 and satisfaction of Level I mathematics course requirement, and either ENG 101 or the Level I communication course requirement

This course is designed to help the nonspecialist gain an understanding of culturally conditioned behavior as it relates to intercultural relations between people of different nations. The course will move from the fundamentals of anthropological linguistics to viewing the causes of communication interference and failure across cultures. (*General Studies Course - Level II, Social Sciences*)

ANT 235-3 (AAS 230) African Peoples and Cultures (3 + 0)

This course examines traditional cultures of African peoples. The course gives added understanding of culture and people in relation to human problems and experiences. Credit will be granted for only one of these courses.

ANT 236-3 (CHS 200) Living Culture and Language of the Mexican and Chicano (3 + 0)

Prerequisite: CHS 100 or 102

The present course traces the fusion of cultures and dialects of the Spanish-speaking Southwest into elements which characterize Chicano intracultural and intercultural diversity. Credit will be granted for only one of these courses.

ANT 237-3 (CHS 231) Mexican Culture and Civilization (3 + 0)

Prerequisite: CHS 100 or permission of instructor

The purpose of this course is to develop a general social, political, and economic understanding of the people and culture of Mexico. Credit will be granted for only one of these courses.

ANT 264-3 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 271-3 Archaeological Field Research (1 + 4)

Prerequisites: ANT 264 or equivalent, and permission of instructor

Archaeological field investigations which may consist of survey, 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 311-3 Human Variation (3 + 0)

Prerequisite: ANT 101 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 is based on understanding the processes that have developed differing human populations. The course will search out the fundamental features of these processes and analyze them.

ANT 315-3 Primate Studies (3 + 0)

Prerequisite: ANT 101 or permission of instructor

Both in the jungle and in the zoo, nonhuman primates are fascinating. Through observation and the use of 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 325-3 Doing Anthropology (3 + 0)

Prerequisite: ANT 131 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 330-3 Exploring World Cultures: Variable Topics (3 + 0)

Prerequisite: ANT 131 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 will learn how culture, and by extension human culture, is a living thing shaped by the people who carry it. May be repeated under different topics.

ANT 331-3 Ethnography of North American Indians (3 + 0)

Prerequisites: ANT 131 or permission of instructor; and satisfaction of Level I General Studies course requirements

This course is a study of the nature and consequences of distinctive Indian cultures that occupied North America at the time of European contact. It will include a close analysis of the many different aspects of social organization and environment that made up the unique cultures called American Indian. (*General Studies Course - Level II, Social Sciences*)

ANT 334-3 Native Americans in Historical Perspective (3 + 0)

Prerequisite: ANT 131 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 culture change are covered and the fundamental issues of land, economic development, and cultural integrity looked at.

ANT 335-3 Vanishing Cultures and Peoples (3 + 0)

Prerequisite: ANT 131 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 will enhance awareness of the fundamental right of different life styles to coexist, and will develop analytical skills to help understand culture changes.

ANT 339-3 Understanding Cultures (3 + 0)

Prerequisite: ANT 131 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 will expand on the means to both understand and mitigate cross-cultural differences.

ANT 346-3 Social Organization and Evolution (3 + 0)

Prerequisite: ANT 131 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 network of complex society.

ANT 348-3 Cultural Diversity in Health and Illness (3 + 0)

Prerequisite: Permission of instructor and satisfaction of Level I General Studies course requirements

This course will prepare students to understand the many different viewpoints and concepts related to health and illness in other cultures. It will emphasize the need and means to provide culturally appropriate health care. (*General Studies Course - Level II, Social Sciences*)

ANT 361-3 Archaeology of North America (3 + 0)

Prerequisite: ANT 101 or permission of instructor

Prehistory of North America emphasizing the peopling of the New World, earliest Indian cultures, and later regional developments.

ANT 362-3 South American Archaeology (3 + 0)

Prerequisite: ANT 101 or equivalent or permission of instructor

This course focuses on the origin 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 366-3 Ancient American Civilizations (3 + 0)

Prerequisite: ANT 101 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 precolonial America will be presented at the beginning of the course. Throughout, the contributions of American civilizations to our culture will be stressed.

ANT 368-3 Practical Archaeology (3 + 0)

Prerequisite: ANT 264 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.

Course Descriptions

ANT 378-3 Prehistoric Migrations (3 + 0)

Prerequisite: Permission of instructor

This course studies the peopling of the world by prehistoric human beings from the earliest evidence to ca. A.D. 400. Physical and cultural evidence for migration, its interpretation, and associated theories will be discussed.

ANT 440-3 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 471-3 Advanced Archaeological Field Research (1 + 4)

Prerequisite: Permission of instructor

Advanced-level archaeological field research including survey design, map-making, transit survey, sampling strategies, artifact conservation, student supervision of excavations and survey, field sample preparation, computer-coding of artifact types and distribution, archival research, site recording, and report writing. Course may be repeated for up to a maximum of six hours. No more than three credit hours may be applied toward a major or minor in anthropology.

Art

The following Art courses are listed numerically by area:

CORE ART COURSES

ART 101-3 Basic Drawing Methods (0 + 6)

A studio course for the non-Art major which introduces basic drawing media and materials. Principles of graphic control are taught with an emphasis toward developing creativity and a personal fine art expression.

ART 102-3 Basic Design and Crafts Methods (0 + 6)

A studio art course oriented to the study of design and craft through working with a variety of craft media such as paper, clay, metal, plastic, wood, and fibers. Oriented to non-art majors.

ART 103-3 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 104-3 Art Appreciation Survey (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This lecture course is primarily for people who are not art majors, but who are interested in acquiring information about techniques used by artists, and the aesthetic values associated with the major works of art history. This information will be used to develop an appreciation of the visual arts. (General Studies Course - Level II, Arts and Letters)

ART 110-3 Drawing Processes and Concepts I (0 + 6)

Introduction to media and materials customarily used in drawing and graphics, stressing development of skills, vocabulary, and sensibilities necessary in visual communication.

ART 111-3 Drawing Processes and Concepts II (0 + 6)

Prerequisite: ART 110

Continuation of ART 110 with emphasis on the figure, challenge of color media, and the elasticity of ideas.

ART 120-3 Design Processes and Concepts I (0 + 6)

Introductory course in the study of the elements and principles of design. Emphasis is on line, shape, color, and space graphically organized.

ART 121-3 Design Processes and Concepts II (0 + 6)

Prerequisite: ART 120

A continuation of ART 120 with design emphasis including three dimensional form, space, and concept.

LEVEL 3 GENERAL STUDIES REQUIRED COURSES

ART 401-3 Modern Art History: Theory and Criticism (3 + 0)

Prerequisites: ART 202 and 202 or permission of instructor; satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A seminar for advanced students involving the reading and discussion of modern writing about the visual arts. Extensive use of the library facilities and written critical essays will be required. (General Studies Course - Level III, Senior Experience)

ART 475-3 Senior Experience Studio: Portfolio Development and Thesis Show (0 + 6)

Prerequisites: ART 401 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

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 with the co-requisite ART 401. (General Studies Course - Level III, Senior Experience)

ART HISTORY

ART 200-3 General History of Art (3 + 0)

A general history of art including Western and non-Western traditions.

ART 201-3 Survey of Modern Art: Impressionism to 1960 (3 + 0)

A survey of modern art that traces the roots of contemporary art theory and techniques back to Impressionism, showing a development of these ideas through abstract expressionism.

ART 202-3 Survey of Contemporary Art: 1960 to the Present (3 + 0)

Prerequisite: ART 201

A survey of contemporary art that traces the development of contemporary art from the period following abstract expressionism to the present with emphasis on art in America.

ART 300-3 Art Nouveau (3 + 0)

Prerequisite: ART 202

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 301-3 Art of the Decade (3 + 0)

Prerequisite: ART 202

Art of the Decade traces specific thematic trends of the present to their roots in the immediate past. Emphasis is placed on current art theory.

ART 302-3 Art of Africa, Oceania, and the Americas (3 + 0)

Prerequisites: ENG 101 and 102

This course is an introduction to the major art forms produced by selected cultures in Africa, the Pacific Islands, and North and Central America. The historical, religious, social, and political content of the artworks will be studied.

ART 303-3 History of Art Between World Wars (3 + 0)

Prerequisite: ART 201

An in-depth study of art, architecture, and design in the transitional period between World War I and World War II.

ART 304-3 African Art (3 + 0)

Prerequisite: ENG 101 and 102

This course examines the visual arts in selected regions of the African continent. It is cross-listed with African American Studies.

ART 307-3 History of Photography (3 + 0)

Prerequisite: ART 202

Study of the development of the photographic process and the history of the photographic image from the earliest experiments through contemporary photographic concerns.

FINE ARTS**ART 210-3 Beginning Life Drawing (0 + 6)***Prerequisite:* ART 111

Literal and interpretive investigations of the human figure including basic anatomy, with a variety of media and application.

ART 212-3 Human Anatomy for Artists (0 + 6)*Prerequisites:* ART 111 and 210

A comprehensive study of human anatomy as a studio drawing experience.

ART 215-3 Beginning Painting (0 + 6)*Prerequisites:* ART 111, 121, 201, and corequisite ART 202

A study of materials and techniques necessary for painting. Control of form and space will be approached through the use of color and design.

ART 220-3 Beginning Photography (0 + 6)*Prerequisites:* ART 111, 121

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 225-3 Beginning Printmaking (0 + 6)*Prerequisites:* ART 111, 121 and 202

A beginning printmaking class introducing the student to collography, art blueprint, silk screen, and intaglio.

ART 230-3 Beginning Sculpture (0 + 6)*Prerequisites:* ART 111, 121

A foundation course to introduce the knowledge and skills needed for personal expression, communication of ideas, and creation of utilitarian objects. Materials, hand and power tools, and techniques for manipulation of three-dimensional form and space are utilized.

ART 310-3 Intermediate Drawing (0 + 6)*Prerequisites:* ART 111, 121, 202

Drawing skills development is coupled with a greater emphasis on ideation.

ART 314-3 Drawing the Human Head (0 + 6)*Prerequisites:* ART 110, ART 111

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 used.

ART 315-3 Intermediate Painting (0 + 6)*Prerequisites:* ART 202 and 215

Painting procedure emphasizing methods, processes and techniques. The development of personal forms and images.

ART 318-3 Watermedia (0 + 6)*Prerequisites:* Core or permission of instructor

Painting procedure emphasizing methods, processes and techniques. The development of personal forms and images.

ART 320-3 Intermediate Photography (0 + 6)*Prerequisites:* ART 202 and 220

Introduction to the extended personally directed project. Problems given to broaden technical skills. Aesthetic and historical issues introduced.

ART 323-3 Color Photography (0 + 6)*Prerequisite:* ART 220

Basic color photography course: Students will have introduction to color materials. Film and print development will be taught. Students will work to produce a body of color photographs.

ART 325-3 Intermediate Printmaking (Lithograph) (0 + 6)*Prerequisites:* ART 202 and 225

Black and white and colored lithographic prints are developed through traditional and contemporary techniques.

ART 326-3 Intermediate Printmaking (Intaglio) (0 + 6)*Prerequisites:* ART 202 and 225

Various intaglio techniques are explored to allow the student to develop a unique personal expression.

ART 327-3 Intermediate Printmaking (Silkscreen) (0 + 6)*Prerequisites:* ART 202 and 225

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 330-3 Intermediate Sculpture (0 + 6)*Prerequisite:* ART 101 and 230

Creative approach to the problems of three-dimensional design in sculpture. Construction in metals, wood, and plastics.

ART 410-3 Advanced Drawing I (0 + 6)*Prerequisite:* ART 310

A concentrated studio approach to drawing that explores diverse media and image within the context of contemporary idioms.

ART 411-3 Advanced Drawing II (0 + 6)*Prerequisite:* ART 410

Continued experimentation with the contemporary idioms of ART 410; designed to encourage individual probing and development.

ART 412-3 Advanced Drawing III (0 + 6)*Prerequisite:* ART 411

Continued experimentation with the contemporary idioms of ART 411; designed to encourage the student to explore visual ideas and systems creatively. A supportive climate for individual directions.

ART 415-3 Advanced Painting I (0 + 6)*Prerequisite:* ART 315

Continuation of ART 315, with emphasis on personal expression.

ART 416-3 Advanced Painting II (0 + 6)*Prerequisite:* ART 415

A continuation of ART 415.

ART 417-3 Advanced Painting III (0 + 6)*Prerequisite:* ART 416

A continuation of ART 416

ART 418-3 Advanced Watermedia (0 + 6)*Prerequisites:* Core and ART 318

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 419-3 Computer Graphics III (0 + 6)*Prerequisite:* ART 341

This course in computer graphics laboratory will cover such areas as drawing, painting, video, bookmaking, sound, and animation as they relate to the fine arts.

ART 420-3 Advanced Photography I (0 + 6)*Prerequisite:* ART 320

Advanced photography: Extended projects emphasizing personal vision and approach to photographic media. Technical problems will be solved.

ART 421-3 Advanced Photography II (0 + 6)*Prerequisite:* ART 420

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 422-3 Advanced Photography III (0 + 6)*Prerequisite:* ART 421

Advanced photography course: Production of a portfolio or book of original photographs. Production of slide sets of original work. Presentation and conceptual ideas stressed.

Course Descriptions

ART 423-3 Advanced Color Photography (0 + 6)

Prerequisite: ART 323

Continuation of Color Photography 323.

ART 424-3 Photography Teaching Assistantship (0 + 6)

Prerequisites: ART 220 and ART 320 or permission of instructor

This studio course will allow 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 425-3 Advanced Printmaking I (0 + 6)

Prerequisite: ART 325, or ART 326, or ART 327

Advanced work in silk screen, lithography, and/or intaglio in which the student is directed toward unique individual expression.

ART 426-3 Advanced Printmaking II (0 + 6)

Prerequisite: ART 425

A further opportunity for the advanced student to develop a unique individual expression in printmaking, with professional control in his chosen area of emphasis.

ART 427-3 Advanced Printmaking III (0 + 6)

Prerequisite: ART 426

A course for art majors emphasizing printmaking which allows students to develop their individual printmaking aesthetic and hone their craftsmanship.

ART 430-3 Advanced Sculpture I (0 + 6)

Prerequisite: ART 330

Further development of knowledge and skills acquired in ART 330. Addition of techniques leading to casting in various metals.

ART 431-3 Advanced Sculpture II (0 + 6)

Prerequisite: ART 430

This course is designed to develop the individual's ability to express her or his ideas and concepts in various sculptural media.

ART 432-3 Advanced Sculpture III (0 + 6)

Prerequisite: ART 431

A continuation of ART 431.

DESIGN

ART 240-3 Beginning Advertising Design (0 + 6)

Prerequisites: ART 111 and ART 121

An introduction to the utilization of the letter form as a compositional element. Offers specific instruction relating to the rendering of Roman, sans-serif, and calligraphic alphabets.

ART 245-3 Beginning Product and Industrial Design (0 + 6)

Prerequisites: ART 111, ART 121

In a studio and shop environment, fundamental design principles are applied to three-dimensional forms and structures. Materials, tools, techniques, human factors, and visual aesthetics are related to the products and their function, with emphasis upon creative project solutions.

ART 340-3 Intermediate Advertising Design (0 + 6)

Prerequisites: ART 202, ART 240 or permission of instructor

An introductory course in advertising design, illustration, and visual communication. Includes instruction relating to the preparation of art work for reproduction.

ART 341-3 Computer Graphics I (0 + 6)

Prerequisites: ART 240 and ART 210 or ART 215

An introductory computer graphics course that will cover the basic functions of the graphics computer as well as explorations of commercial art and fine art applications.

ART 344-3 Color Theory and Practice (0 + 6)

Prerequisite: Art Core Program 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 345-3 Intermediate Product and Industrial Design (0 + 6)

Prerequisites: ART 202, ART 245

Aesthetic designing of utilitarian products for the consumer market, relating appearance, and functional design to such materials as metal, plastics, and wood.

ART 376-3 Artist's Hand Bookmaking Workshop (0 + 6)

Prerequisites: ART 111, ART 121 and ART 202

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 papermaking will be demonstrated.

ART 377-3 Interdisciplinary: Sound/Image (0 + 6)

Prerequisites: Sophomore status, Art Core Program, and permission of instructor

A course that explores using sound(s) in combination with other visual media and ideas. The class is composed of audio experimentation, simple sound production, mixed media, interim and final projects.

ART 378-3 Video Art (0 + 6)

Prerequisites: ART 111, 121 and ART 202 or permission of instructor

This course will serve as an introduction to small format video systems and their operation. Upon completion of the course, students will be familiar with half inch VHS and three-quarter inch systems. Students will learn basic production directed to creative self-expression. Virtuosity will be emphasized through the application of strong ideas.

ART 440-3 Advanced Advertising Design I (0 + 6)

Prerequisite: ART 340

Continuation of ART 340 with emphasis on the production of finished work for the preparation of a graduate portfolio.

ART 441-3 Advanced Advertising Design II (0 + 6)

Prerequisite: ART 440

A continuation of ART 440.

ART 442-3 Advanced Advertising Design III (0 + 6)

Prerequisite: ART 441

A continuation of ART 441.

ART 445-3 Advanced Product and Industrial Design I (0 + 6)

Prerequisite: ART 345

A continuation of ART 345, extending industrial designing into corporate image, product packaging, and display.

ART 446-3 Advanced Product and Industrial Design II (0 + 6)

Prerequisite: ART 445

Advanced industrial design study with opportunity for students to design furniture and contract interiors as well as consumer products.

ART 447-3 Advanced Product and Industrial Design III (0 + 6)

Prerequisite: ART 446

A continuation of ART 446, permitting students, individually, to elect an area of industrial design: consumer products, furniture and appliances, interiors and furnishings, or corporate image design.

ART 451-3 Computer Graphics II (0 + 6)

Prerequisite: ART 341

This course in computer graphics laboratory will cover such areas as layout and typography, design, illustration, and animation as they relate to advertising design and commercial art.

CRAFTS

ART 260-3 Beginning Ceramics (0 + 6)

Prerequisites: ART 111, ART 121

Introducing clay as a working medium. The instruction includes exploration of a variety of handbuilding methods, introduction to ceramic technology and preparing ware for glazing and firing.

ART 265-3 Beginning Metalwork and Jewelry Making (0 + 6)*Prerequisites:* ART 111, ART 121

Design quality as a fundamental part of good craftsmanship is emphasized through the basic techniques involved in working nonferrous and precious metals. Course includes basic fabricating techniques, simple stone setting, and lost wax casting.

ART 360-3 Intermediate Ceramics (0 + 6)*Prerequisites:* ART 202, ART 260

A continued study of ceramic art and technique with emphasis upon competent use of the potter's wheel and extension of handbuilding processes. Exploration of ceramic processes at low and high temperature with emphasis on glaze testing, formulation, and usage.

ART 361-3 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 365-3 Intermediate Metalwork and Jewelry Making (0 + 6)*Prerequisites:* ART 202, ART 265

A continuation of ART 265, extending the content to include a variety of basic metal forming techniques: repousse, raising, block forming, forging, matting, and die forming.

ART 460-3 Advanced Ceramics I (0 + 6)*Prerequisite:* ART 360

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 handbuilt forms.

ART 461-3 Advanced Ceramics II (0 + 6)*Prerequisite:* ART 460

To promote awareness of the technical and aesthetic possibilities inherent in ceramic processes and to develop a sense of responsibility toward the material. The problems to be approached will be formulated by students in consultation with the instructor.

ART 462-3 Advanced Ceramics III (0 + 6)*Prerequisite:* ART 461

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.

ART 465-3 Advanced Metalwork and Jewelry Making I (0 + 6)*Prerequisite:* ART 365

A continuation of ART 365, extending the content to include advanced jointery processes through which inherent aesthetic and structural potential are recognized. Student's aesthetic growth and professionalism to be stressed.

ART 466-3 Advanced Metalwork and Jewelry Making II (0 + 6)*Prerequisite:* ART 465

A continuation of ART 465, extending the content to include photo etching and various advanced surface embellishment techniques. Student aesthetic growth and professional maturity considered essential at this level.

ART 467-3 Advanced Metalwork and Jewelry Making III (0 + 6)*Prerequisite:* ART 466

It will be a continuation of ART 466. A further opportunity for the advanced jewelry student to develop a unique expression and professional control. Portfolio preparation for postgraduate opportunities will be emphasized.

ART 474-3 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 saggar firing processes and effects. Offered summer sessions only.

ART EDUCATION CERTIFICATION**ART 338-4 Introduction to Art Education (3 + 2)***Prerequisites:* 27 semester hours of Art Major (including core) coursework, or permission of instructor.

This lecture course will introduce historical, philosophical, social, and educational concepts which have influenced the development of art education in the United States. The current status of art education, within the context of general education, will be assessed, and a field experience required.

ART 437-3 Art Methods for the Classroom Teacher: K-6 (1 + 4)*Prerequisite:* Permission of department representative

Admission to this course requires command of specialized skills. This lecture/studio course for elementary education students will combine practical studio experiences in art with art education theory and philosophy. Highly recommended for elementary teacher certification. This course is not applicable toward K-12 art specialist certification.

ART 438-4 Art Methods/Materials: K-12 (1 + 6)*Prerequisites:* EDU 221, ART 338, or permission of instructor

This lecture/studio course, preparing k-12 Art Specialists, is designed to create and implement visual art curriculum through theoretical approaches to and experimental activities in methodology of art education. Field experience is required.

ART 439-3 Integrating the Arts for Gifted and Talented (2 + 2)*Prerequisites:* One course selected from the following disciplines: music, dance, theater, visual arts or creative writing and permission of instructor

This course will present a variety of integrated arts curricula appropriate for gifted learners by studying theoretical concepts and practical applications that stimulate the creative process. Field experience is required.

Astronomy**AST 104-3 Introduction to Astronomy (2 + 2)***Prerequisite:* Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

A brief introduction to observational astronomy is followed by a survey of the physical processes and models which describe the evolution of planets, stars, galaxies and modern cosmology. This course is taught in both the lecture and self-paced mode. (*General Studies Course - Level II, Natural Sciences*)

AST 105-4 General Astronomy I (3 + 2)*Prerequisite:* High school algebra or equivalent.

This course introduces the methods and results of modern astronomy (solar system, stars, galaxies, and cosmology) at an elementary level.

AST 106-4 General Astronomy II (3 + 2)*Prerequisite:* AST 105

This course introduces the methods and results of modern astronomy (solar system, stars, galaxies, and cosmology) at an elementary level.

AST 304-3 Modern Cosmology (3 + 0)*Prerequisites:* AST 104 or PHY 100 or equivalent; and satisfaction of Level I General Studies requirements

This is a course in cosmology designed for non-majors covering the large-scale structure of the Universe. Topics covered are gravitational theories, neutron stars, pulsars, black holes, big bang universe, steady state theory, and cosmological tests. (*General Studies Course - Level II, Natural Sciences*)

Athletics**ATH 100-1-2 Varsity Sports (1 + 1) or (2 + 2)**

These 100-level courses are offered to the serious athlete for refinement of the skills involved in each sport. Emphasis is placed on understanding and applying skills of the individual sport in intercollegiate competition, team cooperation, and school spirit. Interested students are encouraged to contact the individual sport coach with resume, current statistics, and letters of recommendation from previous coach.

Course Descriptions

Biology

BIO 100-3 Human Biology for Non-Majors (3 + 0)

Prerequisite: Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

This one-semester course familiarizes the student with the principles of the living world, the basic form and function of the human body, and how these two relate to each other. Basic variations of life forms and the interrelationships of the human body to the surrounding world are the main thrusts of the course. This course does not apply to a biology major or minor. (General Studies Course - Level II, Natural Sciences)

BIO 101-3 Ecology for Non-Majors (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This one-semester course will familiarize the student with the fundamentals of human ecology of North America. Classical concepts of ecology and modern environmental pressures will be brought together to give both a background to and a discussion of existing environmental problems. This course does not apply toward a biology major or minor. A field trip to the Denver Museum of Natural History will be required outside of class. (General Studies Course - Level II, Natural Sciences)

BIO 102-3 Colorado Nature Study for Non-Majors (2 + 3)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

A one-semester course to familiarize the student with the common plants and animals of Colorado. Basic identification, economic importance, distribution, ecological importance, and life cycles will be covered. This course does not apply toward a biology major or minor. (General Studies Course - Level II, Natural Sciences)

BIO 106-3 Pharmacology of Drugs and Alcohol (3 + 0)

Prerequisite: BIO 100 or permission of the instructor

This is the second course of a series of two biological science courses designed for students enrolled in the human services drug/alcohol program. Biochemistry, pharmacology, neurology, pathology, and nutrition will be emphasized with emphasis on alcohol addiction. Open to biology students by permission.

BIO 108-4 General Introduction to Biology (3 + 3)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This introductory course serves as the foundation for all other professional biology courses (for majors, minors, paramedical, premedical, and other biology students). Emphasis is placed on cellular and molecular biology, energy systems, genetics, evolution, and ecology. Offered in both lecture, laboratory, and self-paced laboratory format. (General Studies Course - Level II, Natural Sciences)

BIO 210-5 General Botany (3 + 4)

Prerequisite: BIO 108 or equivalent

An introductory survey of the plant kingdom with emphasis on evolutionary theory, life cycles, anatomy and morphology, and vascular plant physiology.

BIO 220-5 General Zoology (3 + 4)

Prerequisite: BIO 108 or equivalent

An introduction to animal principles. Consideration will be given to structure and function, classification, environmental requirements, and economic importance of the various groups. The laboratory will entail comprehensive examination of representatives of major taxa.

BIO 231-4 Human Anatomy and Physiology I (3 + 3)

Prerequisite: BIO 108 or permission of instructor

This is the first of two courses addressing the structure and function of the human body. Topics include tissue anatomy, the musculoskeletal system and neurophysiology. Course content and level are designed for allied health science students and Human Performance, Sport and Leisure Studies majors.

BIO 232-4 Human Anatomy and Physiology II (3 + 3)

Prerequisites: BIO 231 or permission of instructor

This is the second of two courses addressing the structure and function of the human body. Topics include endocrinology, circulation, respiratory, digestive, urinary, and reproductive systems. Course content and class level are designed for allied health science students and Human Performance, Sport and Leisure Studies majors.

BIO 240-4 General Microbiology (3 + 2)

Prerequisites: BIO 108 plus one year of high school chemistry or one semester of college chemistry, or permission of instructor

An introduction to the microbial world, including discussions of bacteria, blue-green algae, fungi, protozoans, and viruses.

BIO 301-3 Microtechnique (1 + 6)

Prerequisite: BIO 210, or 220, or permission of instructor

A laboratory course designed to familiarize the student with the techniques involved in the preparation of microscope slides. The student will learn how to fix, dehydrate, embed, section, and mount specimens from both plant and animal tissues.

BIO 305-4 Cell and Molecular Biology (3 + 3)

Prerequisites: BIO 108, two additional semesters of biology, and CHE 310 (Organic Chemistry may be taken concurrently), or permission of instructor

A study of the chemical bases and interrelationships of cellular structure as related to cellular function.

BIO 314-5 Plant Physiology (3 + 4)

Prerequisite: BIO 210 or permission of instructor

A comprehensive survey of the internal chemical changes within plants and how these changes control growth and development. Discussions will include water relations, transpiration, food transportation uptake, photosynthesis, respiration, plant movements, flowering, dormancy, and senescence.

BIO 315-2 Plant Hormones (2 + 0)

Prerequisite: BIO 210 or permission of instructor

A study of the roles of the natural hormones such as auxins, gibberellins, cytokinins, and abscisic acid in the growth and development of vascular plants. The use of synthetic substances (growth regulators) such as weed killers, growth retardants, etc., will also be discussed.

BIO 316-4 Plant Anatomy and Morphology (2 + 4)

Prerequisite: BIO 210 or permission of instructor

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 also be discussed.

BIO 318-4 Vascular Plant Taxonomy (2 + 4)

Prerequisite: BIO 210 or permission of instructor

A collection and identification of vascular plants of Colorado. Lectures will include plant terminology, characteristics of major plant families, and uses of the plants. Laboratories will consist of identification of the plants in the field and on herbarium mounts.

BIO 321-4 Histology (2 + 6)

Prerequisite: BIO 220, or BIO 231, or BIO 232, 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 322-5 Comparative Vertebrate Anatomy (3 + 6)

Prerequisite: BIO 220 or permission of instructor

The history of the vertebrate body is presented through laboratory observations of representative vertebrates and through evolutionary and functional interpretations of the significance of the changes in vertebrate organ systems from fish to mammals.

BIO 325-4 Arthropod Zoology (3 + 3)

Prerequisite: BIO 220 or permission of instructor

A survey of the major classes of arthropods. The arachnids, crustacea, diplopoda, chilopoda, and insects are covered in much greater detail than is possible in a general zoology course. The subarthropods are covered briefly.

BIO 327-4 Parasitology (3 + 3)

Prerequisites: BIO 220 and upper-division standing

A study of the structure, function, taxonomy, and life cycles of those parasites important to human beings, domestic animals, the economy, or which illustrate parasitological principles.

BIO 334-3 Endocrinology (3 + 0)

Prerequisites: BIO 108 and two additional semesters of biology, or permission of instructor

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 335-4 Immunology (3 + 3)

Prerequisites: BIO 108 and upper division standing, or permission of instructor

A study of the humoral and cell-mediated immune response. Topics include immunobiology, immunochemistry, hypersensitivity, autoimmune diseases, and theories of antibody formation.

BIO 336-4 Animal Physiology (4 + 0)

Prerequisite: BIO 220, CHE 121 or permission of instructor

A lecture course for science majors on physiological adaptations and acclimations to environmental challenges—especially with respect to temperature, moisture, and oxygen availability.

BIO 340-4 Bacteriology (3 + 3)

Prerequisites: BIO 240 and Organic Chemistry (may be taken concurrently), or permission of instructor

The study of bacteria with an emphasis on their physiology.

BIO 355-4 Urban Ecology (3 + 3)

Prerequisites: BIO 108 or one semester of chemistry, physics, or earth science, or permission of instructor and satisfaction of Level I General Studies Course requirements

Urban Ecology is an analysis 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 Course - Level II, Natural Sciences)

BIO 360-3 General Genetics (3 + 0)

Prerequisites: BIO 108 and two additional semesters of biology, one year of chemistry strongly recommended, or permission of instructor

A study of classical genetics and the molecular basis of heredity.

BIO 412-4 Algology (2 + 4)

Prerequisite: BIO 210

A survey of the algae with emphasis upon the freshwater forms of the United States. Evolutionary theory, ecology, life cycles, and anatomy and morphology are discussed. The laboratory stresses culturing techniques and taxonomy.

BIO 416-4 Mycology (2 + 4)

Prerequisite: BIO 210 or BIO 240

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 422-3 Protozoology (2 + 2)

Prerequisites: BIO 360

A study of the structure, function, taxonomy and identification, ecology and life cycles of primarily free-living protozoans.

BIO 425-4 Entomology (3 + 3)

Prerequisites: BIO 220 and upper-division standing, or permission of instructor

A study of the structure, physiology, and evolution of the insects. The internal, as well as external structure of the insects is considered and the importance of these structures on the insects is developed both in lecture and laboratory.

BIO 427-3 Herpetology (2 + 3)

Prerequisites: BIO 220 and BIO 454 or 455, or permission of instructor

A survey of the characteristics, taxonomy, evolutionary trends, and environmental adaptations of amphibians and reptiles. Identification of Colorado species will be emphasized in the laboratory. Current literature readings will be assigned. At least one weekend field trip will be required.

BIO 428-4 Ornithology (3 + 3)

Prerequisite: BIO 220 or permission of instructor

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 429-3 Mammalogy (2 + 3)

Prerequisites: BIO 220 and BIO 454 or 455, or permission of instructor

A survey of taxonomic, physiological, and anatomic characteristics of modern orders of mammals. Illustrative environmental adaptations and major evolutionary trends will be discussed. The laboratory will include study-skin preparation and identification of representative mammalian species.

BIO 444-4 Virology (3 + 3)

Prerequisite: BIO 240 or permission of instructor

A survey of the interactions of viruses and their hosts. Emphasis is on bacterial- and animal-host forms.

BIO 445-5 Pathogenic Microbiology (3 + 4)

Prerequisite: BIO 240 or permission of instructor

A comprehensive study of human bacterial pathogens. Emphasis is on etiology, pathogenesis, and epidemiology of human diseases. Laboratory studies involve isolation and identification.

BIO 447-3 Microbial Genetics (3 + 0)

Prerequisites: BIO 240 and BIO 360, or permission of instructor

A study of current information on the mechanisms of microbial inheritance and expression of genetic information, intended to develop perspectives relative to the evolution of the field, applications to higher organisms, and directions in current research.

BIO 454-4 Plant Ecology (4 + 0)

Prerequisites: BIO 210 and a minimum of four upper-division hours in botany

A comprehensive study proceeding from a discussion of general ecological principles to a survey of North American plant communities with a detailed coverage of the life zones of the Denver area. Community characteristics, classification, sampling, and analysis are emphasized.

BIO 455-4 Animal Ecology (2 + 4)

Prerequisites: BIO 210 and BIO 220, or permission of instructor

A detailed discussion of population dynamics, intra- and interspecific interactions, niche segregation, species diversity, speciation, and distributional patterns. Appropriate readings from current literature will be required.

BIO 456-2 Field Methods in Plant Ecology (0 + 4)

Prerequisite: BIO 454

Weekly field trips to various plant communities. The student will learn sampling methods, data analysis, vegetative mapping, report writing, and data presentation.

BIO 481-4 Vertebrate Embryology (2 + 6)

Prerequisite: BIO 220 or permission of instructor

Survey of events, evolutionary patterns, and control mechanisms in early embryonic development of various classes of vertebrates, from fertilization through early organ formation. The laboratory includes the study of living fish embryos; lab drawings are required.

BIO 485-3 Evolution (3 + 0)

Prerequisites: BIO 360 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and 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 will be investigated. A research paper and an oral presentation will be required. (General Studies course - Level III, Senior Experience)

Chemistry

CHE 101-3 Chemistry and Society (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests.

This course is designed for non-science majors, specifically to contribute to the General Studies foundation established by the students. The course includes an introduction to the basic concepts of chemistry through discussion of the role of chemistry in modern society. Particular emphasis will be placed on environmental issues. The main thrust is to allow the student to obtain a broad, qualitative understanding of the chemical principles and their application. (General Studies Course - Level II, Natural Sciences)

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CHE 110-5 Principles of Chemistry (4 + 2)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course is a study of the fundamentals of chemistry including both theoretical and laboratory principles. A survey of atomic structure, periodicity, bonding, nomenclature, stoichiometry, gas laws, and solution chemistry is provided for those students with no background in these areas. (*General Studies Course - Level II, Natural Sciences*)

CHE 120-5 General Chemistry I (4 + 2)

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 Course - Level II, Natural Sciences*)

CHE 121-5 General Chemistry II (4 + 2)

Prerequisites: CHE 120 and Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

A continuation of CHE 120, 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 chemistry, medicine, medical technology, biology, physics, and other fields requiring a strong background in chemistry. (*General Studies Course - Level II, Natural Sciences*)

CHE 210-5 Introduction to Organic and Biological Chemistry (4 + 2)

Prerequisite: CHE 110

A study of the elements of organic and biological chemistry. This course satisfies requirements in the professional health related areas such as nursing, as well as for those students who are pursuing careers in science mathematics.

CHE 230-3 Inorganic Chemistry (2+2)

Prerequisite: CHE 121

This course introduces and reviews various topics in inorganic chemistry, such as bonding and reactivity of inorganic substances, acid-base concepts, descriptive chemistry of the main group and transition elements/coordination chemistry. Lab will deal with synthesis and characterization.

CHE 250-3 Introduction to Occupational Health & Safety (3 + 0)

Prerequisite: CHE 121

This course is an introduction to occupational health and safety and includes a historical perspective of the development of various health agencies, and the impact of the Occupational Safety and Health Act of 1970. Students will be introduced to recognition, evaluation, and control of hazards in the work environment.

CHE 270-4 Introduction to Criminalistics (3 + 2)

A study of the basic principles and analysis of microevidence, drug analysis, dactyloscopy, firearms examination, serology, hair and fiber analysis, and soil and glass analysis.

CHE 275-3 Arson and Explosives (3 + 0)

Prerequisite: CHE 110

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 276-1 Field Testing and Laboratory Analysis of Drugs (1 + 0)

Prerequisite: CHE 110

This course introduces the theory and practice of using a drug-testing kit to screen for the presence or absence of controlled substances.

CHE 300-3 Analytical Chemistry (3 + 0)

Prerequisite: CHE 121 (CHE 301 to be taken concurrently)

A study of the fundamentals of analytical chemistry including principles of gravimetric, volumetric, potentiometric, and spectrophotometric analyses.

CHE 301-2 Analytical Chemistry Laboratory (0 + 4)

Prerequisite: CHE 121 (CHE 300 to be taken concurrently)

A study of laboratory methods in analytical chemistry, including techniques of gravimetric, volumetric, potentiometric, and spectrophotometric analyses.

CHE 305-4 Chemistry of the Atmosphere and Its Pollution (3 + 2)

Prerequisites: CHE 120, 121, 310

A comprehensive study of the chemistry of the clean atmosphere and its modification by civilization's pollution.

CHE 310-4 Organic Chemistry I (4 + 0)

Prerequisites: CHE 120 and 121. Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests; CHE 312 is the corequisite.

This course provides an introduction to the nomenclature, structure, synthesis, reactions, properties, identification, and mechanisms of both aliphatic and aromatic organic compounds. (*General Studies Course - Level II, Natural Sciences*)

CHE 311-3 Organic Chemistry II (3 + 0)

Prerequisite: CHE 310

A continuation of CHE 310.

CHE 312-2 Organic Chemistry Laboratory I (0 + 4)

Prerequisites: CHE 120 and CHE 121. Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests. Corequisite: CHE 310 for students in the General Studies curriculum

This is a laboratory course in which organic synthesis and the purification and identification of organic compounds are emphasized. Both classical and instrumental techniques are employed and students are given the opportunity to use these techniques to solve laboratory problems. (*General Studies Course - Level II, Natural Sciences*)

CHE 313-2 Organic Chemistry Laboratory II (0 + 4)

Prerequisite: CHE 312 (CHE 311 taken before or concurrently)

Continuation of CHE 312. A qualitative organic analysis course in which both classical and instrumental techniques are emphasized.

CHE 319-4 Survey of Physical Chemistry (4 + 0)

Prerequisites: CHE 300, MTH 141

A survey of the principles of thermodynamics, quantum mechanics, spectroscopy, kinetics, and electrochemistry.

CHE 320-1 Survey of Physical Chemistry Lab (0 + 2)

Prerequisites: CHE 300, MTH 141

A laboratory study of the basic principles of the experimental methods of physical chemistry including a complete error analysis.

CHE 325-4 Physical Chemistry I (4 + 0)

Prerequisites: MTH 242, PHY 201 or PHY 231, CHE 300

A comprehensive study of the principles of gas dynamics, thermodynamics, phase relationships, solution properties, and electrochemistry.

CHE 326-4 Physical Chemistry II (4 + 0)

Prerequisites: MTH 242, PHY 202 or PHY 233, CHE 300

A comprehensive study of the principles of quantum mechanics, quantum chemistry and spectroscopy, statistical mechanics and kinetics.

CHE 328-2 Physical Chemistry Laboratory I (0 + 4)

Prerequisite: CHE 325 must be taken concurrently

A laboratory study of the basic principles of thermodynamics and its applications.

CHE 329-2 Physical Chemistry Laboratory II (0 + 4)

Prerequisite: CHE 326 must be taken concurrently

A laboratory study of the basic principles of quantum mechanics, spectroscopy, and kinetics.

CHE 340-1 Chemical Literature Search (1 + 0)

Prerequisites: CHE 300, 301, 312

This course is designed to teach the student how to perform an in-depth chemical literature search. Handbooks, biological abstracts, Beilstein, primary literature, and chemical abstracts will be covered. Both manual and computer assisted searches will be performed.

CHE 350-3 Occupational Safety (2 + 2)

Prerequisites: One year of chemistry, human physiology

This course will include a discussion of the principles of accident control, facility inspections, measurement and evaluation of physical hazards such

as radiation and noise, ergonomics, handling of hazardous materials, fire control, and personal protective equipment. The elements of a comprehensive safety program will be studied.

CHE 370-3 Criminalistics I (2 + 2)

Prerequisite: CHE 311

This course introduces the theory and practice of physical evidence analysis. Topics covered include firearms, fingerprints, hairs and fibers, numbers restoration, shoeprints, arson, and paints.

CHE 371-3 Criminalistics II (2 + 2)

Prerequisite: CHE 370

This course is a continuation of CHE 370. It introduces the theory and practice of chemical evidence analysis. Topics covered include controlled substances, toxicology, and serology.

CHE 380-3 Personal Computers for Science (3 + 0)

Prerequisite: CHE 121, CSI 101 or CMS 101

This course is designed to teach students to use existing software on IBM and IBM compatible personal computers. Systems studied include: MS DOS, desktop publishing, spreadsheet manipulation, database management, and graphics.

CHE 389-1-3 Science and Public Policy: (Variable Topics) (3 + 0)

Prerequisite: Any lower division science course, ENG 101 or permission of instructor

To participate fully in our structural democracy in this highly technological age, people need a working familiarity with the technical issues which influence major public policy decisions. This course will cover both the policy issues and the relevant technologies, and examine their interconnection. Course content will vary according to topic, which will cover health, the environment, energy, or other topics as they become national issues.

CHE 401-3 Advanced Organic Chemistry (3 + 0)

Prerequisite: CHE 311; CHE 319 or CHE 326

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 402-3 Synthetic Organic Chemistry (3 + 0)

Prerequisites: CHE 311, 313; CHE 319 or CHE 326

This course represents a unified approach to classical and modern synthetic chemistry, including aspects of thermodynamics, kinetics, mechanism, and stereochemistry.

CHE 410-3 Instrumental Analysis (3 + 0)

Prerequisite: CHE 300, 301, 310; CHE 319 or CHE 326

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 spectroscopy, chromatography, and electroanalytical methods.

CHE 411-2 Instrumental Analysis Laboratory (0 + 6)

Prerequisites: CHE 300, CHE 301, CHE 310, CHE 311; CHE 319 or CHE 326 (CHE 410 must be taken concurrently)

A study of instrumental methods, employing electromagnetic radiation, magnetic resonance, mass spectrometry, chromatography, and electrochemistry.

CHE 415-4 Instrumentation and Analysis in the Occupational Environment (3 + 2)

Prerequisite: CHE 410

The instruments used to sample and analyze potential occupational hazards are described. Students gain experience in the calibration and use of direct reading and field sampling instruments.

CHE 420-3 Evaluation and Control of Air Quality (2 + 2)

Prerequisite: CHE 415

This course is a continuation of CHE 415. The concepts and techniques of sampling, evaluation, and control of airborne hazards are presented. Principles of ventilation are included.

CHE 425-3 Principles of Occupational Health and Safety (3 + 0)

Prerequisite: CHE 420

The general principles of recognition, evaluation, and control of occupational hazards are applied in solving field programs.

CHE 430-3 Advanced Inorganic Chemistry (3 + 0)

Prerequisite: CHE 319 or CHE 326

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 431-5 Biochemistry I (4 + 3)

Prerequisite: CHE 310

An introduction to the chemistry of living systems with emphasis placed on metabolism, bioenergetics, and molecular biology. Applications to the related fields of nutrition, human physiology, and medicine are stressed. Laboratory experiments introduce the student to the basic techniques and instrumentation of biochemical research, as well as to special areas such as immunodiffusion, clinical and mutagenicity tests.

CHE 432-3 Biochemistry II (3 + 0)

Prerequisites: CHE 431

Continuation of Biochemistry I (CHE 431). Course theme is regulation, and emphasis is current biochemical research results. Topics covered include enzyme catalysis, biosynthesis, membrane biochemistry, genetic engineering, molecular basis of cancer, genetic transposition, neurochemistry, biochemical detoxification, molecular basis of inherited diseases, and selected topics in human nutrition.

CHE 450-3 Occupational Toxicology (3 + 0)

Prerequisites: CHE 431, MTH 320, or permission of instructor

The various types of toxic substances are discussed with emphasis upon modes of contact and entry of toxic agents, recognition of physiological effects, occupational diseases, toxic dosage, and exposure limits.

CHE 465-4 Chemistry Work Experience/Cooperative Education (0 + 40)

Prerequisites: CHE 301, 311

Laboratory field experience for students majoring or minoring in chemistry. A total of 600 hours of work experience will be required.

CHE 470-7 Criminalistics Internship I (0 + 21)

Prerequisite: CHE 371

Laboratory internship experience for criminalistics majors.

CHE 471-7 Criminalistics Internship II (0 + 21)

Prerequisite: CHE 470

Laboratory internship experience for criminalistics majors.

CHE 475-8 Occupational Health and Safety Internship (0 + 24)

Prerequisites: Senior standing and approval by the internship coordinator

A one-semester internship with local industry provides field experience for Occupational Health and Safety majors.

Chicano Studies

*Please see an advisor for a current listing of all MSCD courses designated as multicultural for General Studies requirements

CHS 100-3 Introduction to Chicano Studies (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course introduces the student to the interdisciplinary analysis of the Chicano experience in the United States. Research in history, the arts, sociology, anthropology, political science, education, medicine, and engineering is incorporated to provide the student with better academic skills in a competitive national and international atmosphere. (*General Studies Course - Level II, Social Sciences; Multicultural*)

CHS 101-3 (HIS 191) History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)

Prerequisite: CHS 100 and minimum performance standard scores on the reading and writing preassessment placement tests

This course provides an opportunity to study the indigenous cultures of Meso-America during the Pre-Columbian period and focus on social, artistic, scientific,

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and engineering artifacts before and after the conquest of Mexico and the Southwestern U.S. by Spain. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Historical*)

CHS 102-3 (HIS 192) History of the Chicano in the Southwest: Mexico and U.S. Periods (3 + 0)

Prerequisite: CHS 101 or permission of instructor

This course begins with the Mexican War of Independence (1810) and concludes with an in-depth study of the historical development of the contemporary Chicano world. Credit will be granted for only one of these courses.

CHS 200-3 (ANT 236) Living Culture and Language of the Mexican and Chicano (3 + 0)

Prerequisite: CHS 100 or 102

The present course traces the fusion of cultures and dialects of the Spanish-speaking Southwest into elements which characterize Chicano intracultural and intercultural diversity. Credit will be granted for only one of these courses.

CHS 201-3 (ENG 241) Survey of Chicano Literature (3 + 0)

Prerequisite: CHS 100 or permission of instructor

This course reviews the major literary genres associated with Chicano creative expression, including the poetry, drama, and the novel. Credit will be granted for only one of these courses.

CHS 202-3 (ENG 242) Chicano Poetry and Drama (3 + 0)

Prerequisite: CHS 201 or permission of instructor

This course is an intensive study of Chicano poetic and dramatic arts as it attempts 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 of these courses.

CHS 211-3 The Chicano in Aztlan (3 + 0)

Prerequisite: CHS 100 or permission of instructor

The intent of this course is to focus on three (3) major motifs associated with the socio-historical development of the Chicano in the Southwest: land, farm labor and urban enclave.

CHS 221-3 (SOC 240) The Chicano Family (3 + 0)

Prerequisite: CHS 100 or permission of instructor

Provides the participant with an opportunity to study the Chicano family as a social institution in its varying manifestations as it transmits knowledge for existence in a multicultural world. Credit will be granted for only one of these courses.

CHS 231-3 (ANT 237) Mexican Culture and Civilization (3 + 0)

Prerequisite: CHS 100 or permission of instructor

The purpose of this course is to develop a general social, political, and economic understanding of the people and culture of Mexico. Credit will be granted for only one of these courses.

CHS 301-3 (HIS 383) The Mexican Revolution (3 + 0)

Prerequisite: CHS 100 or permission of instructor

This course will trace historical events, personalities, and values that were and are affected by the Mexican Revolution (1910-1940). It includes a social-political analysis of the Revolution's events as well as its impact on the United States. Credit will be granted for only one of these courses.

CHS 310-3 (SOC 313) The Chicano Community (3 + 0)

Prerequisite: CHS 100 or permission of instructor; satisfaction of Level I General Studies course requirements

This course offers an in-depth study of the history of community organizations, the process by which they came about and information relative to existing organizations and their functions in the community. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Social Sciences; Multicultural**)

CHS 320-3 (CJC 372) Chicano and the Law (3 + 0)

Prerequisite: CHS 102 or permission of instructor

This course offers the student a better understanding of the laws and the legal system and how they relate to individual and community rights. Credit will be granted for only one of these courses.

CHS 330-3 (EDU 312) Education of Chicano Children (3 + 0)

Prerequisite: CHS 200

Provides the student an opportunity to view and understand the Chicano perspective regarding current public educational policy and its implementation on the schooling process. It presents learning and teaching differences in students and teachers. Credit will be granted for only one of these courses.

CHS 340-3 (ENG 348) The Chicano Novel (3 + 0)

Prerequisite: CHS 201 or permission of instructor

This course deals with origins, themes and techniques which 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 of these courses.

CHS 341-3 (ENG 349) Chicano Folklore of the Southwest (3 + 0)

Prerequisite: CHS 200 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 of these courses.

CHS 346-3 La Chicana (3 + 0)

Prerequisite: CHS 100 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.

CHS 351-3 (PHI 342) Aztlan: Myth and Reality (3 + 0)

Prerequisite: CHS 200 or permission of instructor

The purpose of this course is to study Aztlan as a concept, a historical, geographical and mystical reality utilizing time, space and relationships as well as the belief systems of the Pre-Columbian Meso-American. Credit will be granted for only one of these courses.

CHS 352-3 Mystery of the Mexican Pyramids (3 + 0)

Prerequisite: CHS 200 or permission of instructor

This course studies the origin and purpose of the Mexican Pyramids as symbols of knowledge, power and control of cosmic proportions.

CHS 380-1-4 Topics in Chicano Research (1-4 + 0)

Prerequisite: CHS 201 or permission of instructor

This course is designed to facilitate the development of research skills, analytical thought and theory building in the organization and writing of a research paper using Chicano Studies as a basic school of thought.

CHS 401-3 The Chicano Movement (3 + 0)

Prerequisite: CHS 100 or CHS 310 or permission of instructor

This course provides the student with a perspective on the Chicano civil rights movement. It discusses the social conditions, civil rights issues, and direction of the movement in contemporary society.

CHS 420-3 (ENG 413) Seminar: Carlos Castaneda (3 + 0)

Prerequisite: Upper-division standing or permission of instructor

Carlos Castaneda has become a major literary figure and the scope of his production deserves a serious and detailed analysis. Credit will be granted for only one of these courses.

Chinese

CHI 111-3 Basic Conversational Chinese I (3 + 0)

A course designed to teach the essentials of elementary Chinese language through a conversational approach.

CHI 112-3 Basic Conversational Chinese II (3 + 0)

Prerequisite: CHI 111 or equivalent or permission of instructor
A continuation of CHI 111.

Civil Engineering Technology**CEN 110-3 Civil Technology (3 + 0)**

Prerequisite: MTH 111 (may be taken concurrently)

A broad cross section of topics in contemporary engineering disciplines with emphasis on the tools of engineering problem solving; the problem, the influencing factor, the analysis, and the creative design process itself.

CEN 120-4 Technical Drawing I (2 + 4)

An introductory course in technical drawing. Covers the use of instruments, lettering, geometric construction, sketching, and orthographics.

CEN 121-4 Technical Drawing II (2 + 4)

Prerequisite: CEN 120

Continuation of CEN 120 to include advanced study in orthographic projection, dimensioning, sectioning, and tolerancing.

CEN 210-4 Structural Drawing (2 + 4)

Prerequisite: CEN 121

Study and preparation of necessary drawings of structural members and connections including engineering layout and detail drawing.

CEN 215-3 Mechanics I – Statics (3 + 0)

Prerequisite: MTH 141 (may be taken concurrently)

Principles of statics. Study of vectors, their resolution and composition; forces and moments, force systems and their resultants. Force systems in equilibrium, static friction, centroids, moments of inertia, and radii of gyration of areas. Shear and moment diagrams.

CEN 221-3 Architectural Drawing (2 + 4)

Prerequisite: CEN 121

Introduction to architectural working drawings. Development of plans, sections, elevations, and details.

CEN 305-4 Statics and Dynamics (4 + 0)

Prerequisite: PHY 201

Corequisite: MTH 241

Study of statics, dynamics, kinematics, and kinetics of particles and rigid bodies. Not for CEN majors.

CEN 310-3 Construction Methods (3 + 0)

Prerequisite: Junior standing

Application of engineering fundamentals and analyses to methods of improving the quality, while at the same time reducing costs of construction.

CEN 311-3 Construction Estimating (3 + 0)

Prerequisite: Junior standing

Provides a basic understanding of the methods used to prepare a building construction cost estimate. Also prepares the student to do a quantity survey utilizing plans and specifications with emphasis in concrete, masonry, steel, and wood.

CEN 312-3 Engineering Economy (3 + 0)

Prerequisite: Junior standing

The use of the "Time Value of Money" as a basis for evaluating economic alternatives required in engineering decision-making.

CEN 313-3 Mechanics of Materials (3 + 0)

Prerequisite: CEN 215 and MTH 241 (MTH 241 may be taken concurrently)

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.

CEN 314-1 Mechanics of Materials - Lab (0 + 1)

Prerequisite: CEN 215, MTH 241, CEN 313 (CEN 313 should be taken concurrently)

This is the laboratory course to accompany the lecture course CEN 313, Mechanics of Materials. This laboratory course is structured to give the

student experience in the use of laboratory equipment for conducting tension, torsion, shear and bending tests on various materials.

CEN 316-3 Mechanics II / Dynamics (3 + 0)

Prerequisites: CEN 215 and MTH 241 (MTH 241 may be taken concurrently)

Principles of dynamics. Kinematics, the study of the geometry motion of a body without reference to the forces which 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.

CEN 317-3 Introduction to Structural Analysis (3 + 0)

Prerequisite: CEN 313

First principles of structural analysis applied to statically determinate and indeterminate structures.

CEN 318-3 Fluid Mechanics I (3 + 0)

Prerequisite: CEN 316

Covers physical properties of fluids, hydrostatics, kinematics and dynamics of fluid flow, flow measurements, flow in pipes and open channels, dynamic force, and momentum.

CEN 319-3 Fluid Mechanics II (3 + 0)

Prerequisite: CEN 318

Includes the study of the hydrologic cycle, rainfall and runoff, water losses, snowmelt, groundwater, unit hydrograph, floods and flood routing, streamflow records, frequency and duration, and water resources planning.

CEN 320-3 Advanced Technical Drawing (2 + 4)

Prerequisite: CEN 120, 121, or permission of instructor

Students develop advanced skills in technical drawing.

CEN 330-3 Water Supply and Treatment (2 + 3)

Prerequisite: Permission of instructor

A study of water supply systems to include sources of supply, potability, quantity requirements, treatment plant design, and plant operation.

CEN 331-3 Wastewater Treatment and Disposal (2 + 3)

Prerequisite: Permission of instructor

Studies in sanitation with emphasis on liquid and solid waste disposal. Fundamentals of collection, treatment, plant design, and plant operation.

CEN 332-3 Environmental Impact Statements (3 + 0)

Prerequisites: Junior standing or permission of instructor

A study of the physical and legal requirements of the environmental impact assessment process. Includes information research and preparation of an environmental impact statement.

CEN 410-3 Structural Design (3 + 0)

Prerequisite: CEN 317

The analysis and application of timber and steel structures including stresses in members, selection of members, and selection and application of connectors.

CEN 411-3 Steel Design (3 + 0)

Prerequisite: CEN 410

A continuation of the fundamentals introduced in structural design, with the emphasis placed on the analysis and design of steel structural members based on the latest editions of the various codes required in the design of steel structures.

CEN 412-3 Concrete Design I (3 + 0)

Prerequisite: CEN 317

A basic course introducing the fundamental principles of reinforced concrete design.

CEN 413-3 Soils Mechanics (2 + 4)

Prerequisites: CEN 313 and CEN 318

Soil properties are studied and soil characteristics introduced; methods of sampling and analysis are treated. Variations in behavior under different loading conditions are analyzed.

CEN 414-3 Concrete Design II (3 + 0)

Prerequisite: CEN 412

A continuation of the fundamentals introduced in Concrete Design I, with the emphasis placed on the analysis and design of concrete structural

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members based on the latest editions of the American Concrete Institute Building Code requirements for reinforced concrete.

CEN 415-3 Highway Engineering (3 + 0)

Prerequisite: CEN 412

This is a specialized course in requirements, functional characteristics, and system characteristics of highway design. Design methods, procedures, and analysis are developed for pavement design, roadway alignment, and user information for freeways, city arterials, and rural roadways.

CEN 430-3 Environmental Technology (2 + 3)

Prerequisite: Permission of instructor

Covers the fundamentals of environmental sanitation, to include an overview of disease transmission and control; strategic methods in chemistry and separation systems to deal with domestic and industrial pollution control. Field trips to control facilities and agencies.

CEN 431-3 Environmental Technology Practices (2 + 3)

Prerequisite: Junior standing or permission of instructor

Studies in sanitation technology covering regulatory and control measures. Planning, public relations, and other aspects. Regulatory statutes, bodies, regulations, reports, and possible new control arrangements are reviewed and discussed.

Community Service Development

CSD 200-1 Introduction to Community Service Development (1 + 0)

This course will address issues related to the integration of the CSD classroom theory to an applied work situation as well as assessing what coping skills are necessary for survival in nonprofit administration.

CSD 201-4 Principles of Community Service Development (2 + 6)

Prerequisite: CSD 200

This course is designed to provide the student with a general awareness of the basic principles and concerns associated with the administration of nonprofit organizations.

CSD 300-2 Applied Development and Seminar I (1 + 3)

Prerequisite: CSD 200

Weekly seminar sessions will be used in assisting students in the techniques of writing goals and objectives to facilitate the integration of the theory gained in the classroom with the experiential learning in the field. The seminar will also work on leadership competencies and self-evaluation skills along with building a peer learning and support system.

CSD 321-2 Conflict Resolution and Decision-Making (1 + 3)

Prerequisite: CSD 200

This course will concentrate on the problems in effective conflict management which include conflict analysis and the development of skills in negotiation and mediation.

CSD 341-3 Development and Use of Inexpensive Media (1.5 + 5)

Prerequisite: CSD 200

This course will examine the factors to consider in the development and use of inexpensive media, i.e., brochures, posters, slide shows, handouts, news releases, public service announcements, etc.

CSD 361-3 Financial Accountability of Nonprofit Programs (1.5 + 5)

Prerequisites: CSD 200 plus nine hours of courses with URS or CSD prefixes or permission of instructor

This course will assist the student in developing a budget, keeping track of cash flow, audit considerations, and legal responsibilities.

CSD 371-3 Community Services Development Lobbying: Theory & Practice for Nonprofit Organizations (3 + 0)

Prerequisite: CSD 200

Examines lobbying opportunities for nonprofit organizations; develops skills for lobbying government officials effectively; and provides a working knowledge of the legislative process, particularly at the state level.

CSD 401-3 Assessment and Evaluation of Nonprofit Programs and Projects (1.5 + 5)

Prerequisites: CSD 200 plus nine hours of courses with URS or CSD prefixes or permission of instructor

Each student will be required to design an assessment or evaluation plan for a particular program or project in a nonprofit organization. The course is designed to assist students in determining what information is needed, how it is to be collected, and how to evaluate the findings.

CSD 402-4 Fundraising and Proposal Writing for Community Services (2 + 6)

Prerequisites: CSD 200 plus a minimum nine hours of courses with URS or CSD prefixes, or permission of instructor

An examination of the various methods of obtaining funds for nonprofit organizations so they can function effectively. Special emphasis will be placed on writing successful proposals, including budgets and budget narrative.

CSD 431-3 Development and Administration of Volunteer Programs (1.5 + 5)

Prerequisite: CSD 200

This course will analyze approaches, problems and benefits of effective use of volunteers in a wide variety of nonprofit organizations. Topics include: interviewing, recruitment, designing of volunteer jobs, motivation, organizational climate, program planning, evaluation, and client/staff/volunteer/board communications.

CSD 451-3 Politics of Agency Survival (1.5 + 5)

Prerequisites: CSD 200 plus 9 credits of CSD or URS courses, or permission of instructor

This course will examine those external and internal forces that affect the functioning of a wide variety of nonprofit organizations. Special emphasis will be placed on the general sociopolitical climate and funding sources, as well as personalities, programs, and structures operating inside a nonprofit organization.

Computer Information Systems and Management Science

CMS 101-3 Introduction to Computers (3 + 0)

A study of the software, hardware and general characteristics of computer systems, with minimum programming in the BASIC language.

CMS 201-3 Principles of Information Systems (3 + 0)

Prerequisites: Computer Literacy as evidenced by a previous course in high school or college involving computers or by appropriate work experience involving computer usage.

This course is an introduction to business information systems which includes: (1) computer hardware and software; (2) usage of computer software productivity tools for data management and analysis; and (3) information systems structure, management, and analysis and design. Note: This course is primarily intended for students with majors in the School of Business.

CMS 211-3 COBOL (3 + 0)

Prerequisite: CMS 201

A computer programming course in which the major elements of the COBOL language are taught. Problems selected from business are coded and run on a computer to familiarize students with program testing and debugging.

CMS 214-3 Fundamentals of Programming — Assembler (3 + 0)

Prerequisite: CMS 211

Introductory course in programming which uses the IBM 370 and its assembly language (BAL) to develop fundamental concepts. Topics include system organizations; data representation; use of arithmetic, logical, and editing instructions; and program analysis and debugging techniques.

CMS 223-3 Word Processing (3 + 0)

Prerequisite: Typing skill of at least 40 wpm

This course is designed to give students hands-on experience with word processing equipment and to acquaint the students with other aspects of the electronic office.

CMS 305-3 Fundamentals of Systems Analysis and Design (3 + 0)*Prerequisite:* CMS 201

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 306-3 File Design and Data Base Management (3 + 0)*Prerequisite:* CMS 305

The course covers the current status of data base system implementation. Functional characteristics, such as file design, are examined in detail. Guidelines are developed which will aid in evaluation of vendor-supplied data base management systems or specification of an in-house system.

CMS 309-3 Job Control Language and Operating Systems (3 + 0)*Prerequisite:* CMS 214 or permission of instructor

A continuation of the study of the use of BAL as used in implementation of assemblers, macros, loaders, compilers, and operating systems for the IBM 360/370.

CMS 311-3 Advanced COBOL (3 + 0)*Prerequisite:* CMS 211

A continuation of CMS 211 with emphasis on business applications involving indexed sequential and random access files. Advanced features of COBOL such as the Report Generator and Sort Verb are studied.

CMS 312-3 BASIC Programming and Graphics for Computers (3 + 1)*Prerequisite:* CMS 201

This course covers the use of graphical presentation of business information. Programs are written using the graphics extensions to standard programming languages, line graphs, bar charts, pie charts, and other graphics presentations will be created and their value explored. High level graphics languages will also be studied.

CMS 313-3 Implementing Business Systems in UNIX Using C (3 + 0)*Prerequisites:* CMS 201, CMS 305, proficiency in a programming language, junior standing

The study of the UNIX operating system environment and its importance to the development of business information systems. The UNIX operating system is rapidly becoming the standard for multi-user computer systems. Systems will be implemented using C, a powerful programming language associated with UNIX which is used for the development of most applications in this environment.

CMS 314-3 Advanced Assembler Language (3 + 0)*Prerequisite:* CMS 214

A computer programming course in which Basic Assembler Language (BAL) for the IBM 370 computer is taught. Topics include a review of computer numeration systems, syntax and elements of BAL, computer program addressability and relocatability, and debugging techniques.

CMS 322-3 Analysis of Computer Hardware and Software (3 + 0)*Prerequisite:* CMS 305

A study of various computer systems (both hardware and software) in relation to information system requirements. Comparisons of costs, capabilities, and software support will be made.

CMS 323-3 Data Communication Systems (3 + 0)*Prerequisite:* CMS 322 or permission of instructor

A study of data transmission; the nature of communication links and the attached hardware; the codes, modems, terminals, and methods of line organization; the need for multiplexing and the types of network structures; software; design techniques.

CMS 324-3 Computer Auditability and Control (3 + 0)*Prerequisite:* CMS 305 and ACC 202

A study of the fundamentals of preventing and/or detecting attempts to compromise computer systems. Basic principles of creating systems that augment successful computer security and control are discussed.

CMS 325-3 Automated Office Systems (3 + 0)*Prerequisite:* CMS 201

This course presents an overview of the electronic equipment available for use in business systems. Technologies included are word processing, communications, phototypesetting, reprographics, and networks.

CMS 327-3 Micro Based Software (2 + 2)*Prerequisite:* CMS 201

A microcomputer course which teaches concepts of word processing, electronic spreadsheets and data base management software on the IBM PC/XT. Hands-on experience included.

CMS 330-3 Principles of Quantitative Management Systems (3 + 0)*Prerequisites:* MTH 131, MTH 132

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 hypotheses, quality control, and regression and correlation analyses, etc., in the context of production and operations management skills needed by American industry.

CMS 331-3 Business Forecasting Methods (3 + 0)*Prerequisite:* CMS 330

A study of linear and multiple regression, time series forecasting, index number calculation, and analysis.

CMS 332-3 Quantitative Decision-Making (3 + 0)*Prerequisite:* CMS 330

Designed to develop the student's ability to use basic theory and management science techniques. Includes construction of payoff tables, Bayesian Statistics, inventory and production control, and linear programming methods.

CMS 340-3 Simulation of Management Processes (3 + 0)*Prerequisite:* CMS 332

A study of computer simulation techniques as applied to resources allocation problems in the business environment.

CMS 361-3 Introduction to Artificial Intelligence for Business (3 + 0)*Prerequisites:* CMS 201 and proficiency in a programming language

An introduction to the field of applied artificial intelligence/expert systems and its importance in the business environment. Topics include human intelligence and business problem solving, knowledge representation strategies, expert systems design, the knowledge engineering process, robotics, voice recognition systems, and the future of applied artificial intelligence/expert systems in business and industry.

CMS 405-3 Advanced Systems Analysis and Design Seminar (3 + 0)*Prerequisites:* CMS 306 and CMS 322

A business information systems problem will be analyzed. A complete technical design document will be prepared utilizing the steps of the System Life Cycle: Definition and Design. The design document will be used as a basis for systems development in CMS 407

CMS 406-3 Advanced Data Base Systems (3 + 1)*Prerequisites:* CMS 306 and CMS 327 or advanced programming language course; Senior standing

This course provides an in-depth understanding of data base management systems. Several commercially available data base systems are examined and compared. Data definition and data manipulation languages will be discussed and the opportunity to design and implement a data base is provided.

CMS 407-3 Systems Development and Implementation (3 + 1)*Prerequisites:* CMS 405 and an advanced programming language, senior standing

This course is designed to provide a realistic environment for a student to develop and implement a system from a design. The student will write programs, convert data, test, and produce a working system.

CMS 416-3 Advanced Programming Seminar (3 + 0)*Prerequisite:* CMS 311 or CMS 314

Major business-related projects will be analyzed, coded, and tested.

Course Descriptions

CMS 439-3 Case Studies in Management Science (3 + 0)

Prerequisites: CMS 327 and CMS 332, senior standing

This course involves a study of the implementation of management science models and their interrelationship to other factors in an information system.

CMS 441-3 Management Information Systems (3 + 0)

Prerequisites: CMS 305, CMS 332, MGT 300

This course involves a review of management systems, structures, and functions, and an introduction to managerial decision making styles. The course includes development of the nature and form of information processing systems, databases, and delivery systems. Decision Support Systems and Expert Systems will be discussed as components of Management Information Systems.

Computer Science

Computer Science courses use the CSI prefix and are taught through the Department of Mathematical Sciences.

CSI 101-3 Introduction to Computer Science (2 + 2)

Prerequisite: Intermediate algebra or one and one-half years of secondary school algebra

This course reviews the historical, societal, ethical, and technological aspects of computers. The laboratory sessions allow for the use of existing packages as well as an introduction to the programming of a computer. This course is designed for the student who is undecided about career choices as well as those who want an introduction to computing and computer science. No prior background in computing is assumed. This course does not apply to a mathematics major.

CSI 102-2 BASIC Programming (2 + 0)

Prerequisite: One year of high school algebra or permission of instructor

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, and run the programs on interactive terminals.

CSI 130-4 Introduction to Structured Programming (CS I) (4 + 0)

Prerequisite: CSI 101 and MTH 111 or their equivalents

Introduction to Structured Programming is the first course in the computer science core sequence. Students will learn a modern structured programming language and the basic skills needed to analyze problems and construct programs for their solution. The emphasis of the course is on the techniques of algorithm development and programming style, including top-down design and structured programming methods. Students are also introduced to the fundamentals of software engineering and the software development life-cycle.

CSI 222-3 The C Programming Language (3 + 0)

Prerequisite: CSI 101, CSI 130, MTH 151, or previous knowledge of a programming language

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. This course may not be applied for credit toward the computer science major or minor.

CSI 230-4 Advanced Programming and Data Structures (4 + 0)

Prerequisite: CSI 130

This course, a continuation of CSI 130, further emphasizes the concepts of the software development cycle. In this course students are first introduced to the concept associated with the application of this essential computer science concept. Specific topics include link-lists, records and files, recursion, and a variety of methods of data representations. Further topics in software engineering and programming style as well as algorithms for sorting and searching are included.

CSI 240-4 Computer Organization and Assembly Language (4 + 0)

Prerequisites: CSI 130 and EET 231 or equivalent or permission of instructor

This course is a study of the internal organization of computing machinery and the hardware elements essential to the computation process. Various forms of computer organization are studied and analyzed. The vehicle for exploration of the computer hardware is Assembly language which provides specific instructions for the direct manipulation of the memory registers and control flags associated with virtually all modern computers.

CSI 310-4 Discrete Mathematics (4 + 0)

Prerequisite: MTH 241 or permission of instructor

In addition to basic proof techniques, this course covers the basic theoretical tools for analysis in computer science. Significant emphasis is placed on the mathematical aspects of automata theory and computability issues.

CSI 312-4 Organization and Structure of Operating Systems (4 + 0)

Prerequisite: CSI 230 and CSI 240, or permission of instructor

An introduction to the design, development, and implementation of modern computer operating systems and utility software, this course supplements the study of computer organization and architecture begun in CSI 240. Topics include Input/Output processors, interrupt handling, system resource management, simultaneous processes, communication between machines and processes, and computer system security.

CSI 321-4 Principles of Programming Languages (4 + 0)

Prerequisite: CSI 230 or permission of instructor

This course traces the evolution of programming languages and identifies and analyzes the contributions made by several significant languages and their successors. Specific issues of programming language implementation such as creation of activation records for block-structured languages and static and dynamic scoping as methods for defining program object visibility are studied in depth. All four of the modern programming language paradigms (procedural, functional, object-oriented, and logical) will be reviewed. The design, evaluation, and implementation of programming language processors such as interpreters, compilers, and translators are studied.

CSI 330-4 Foundations of File Structures (4 + 0)

Prerequisite/Corequisites: CSI 230 and CSI 222 or equivalent facility in the C programming language or permission of instructor

This course explores the fundamental concepts associated with external storage media and the methods of organization, storage, and retrieval of data on peripheral devices. Various file structuring schemes are compared and contrasted in order to develop an in-depth understanding of the most efficient methods for given situations. Students will gain experience with internal storage management and a wide variety of sequential and random access methods of file organization and structure.

CSI 412-4 Foundations of Artificial Intelligence (4 + 0)

Prerequisite: CSI 330 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. Topics 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 419-4 Software Development and Engineering for Technical Writers (3 + 0)

Prerequisite: COM 261 or permission of instructor

This course entails the comprehensive study of the software development process. Each phase of the software development process is studied in depth. Special emphasis is made on the documentation intensive phases of requirements definition, specifications, development, and design methodologies. Students will participate as documenters on teams that will exercise the complete software life-cycle on selected projects. Not applicable for CSI majors and minors.

CSI 421-4 Software Development and Engineering (4 + 0)

Prerequisites: CSI 330 and COM 261 or permission of instructor

This course entails the comprehensive study of the software life-cycle. Each of the currently identified phases associated with the software life-cycle is studied in some depth. Special emphasis is placed upon the early phases of requirements definition, specifications development, and design methodologies. Student teams will exercise the software life-cycle on selected projects.

CSI 430-4 Advanced Data Structures and Algorithm Analysis (4 + 0)

Prerequisites: CSI 310, CSI 330 and MTH 321

This course continues the study of data structures begun in CSI 230. Extensive concentration is placed on the concept of the abstract data type (ADT). A wide variety of abstract data types are studied including linear and non-linear ADTs. The emphasis is on the design, analysis, and evaluation of efficient algorithms for a wide variety of common computing problems.

CSI 451-3 Computer Graphics (3 + 0)

Prerequisites: CSI 230, MTH 141, and either MTH 214 or MTH 314, or permission of instructor

An introduction to static computer graphics. Characteristics of plotters, refresh CRTs, and storage-tube displays; windowing, line-drawing and vector clipping algorithms; space transformations of geometric objects, homogeneous coordinates; digitizing and shading algorithms; three-dimensional graphics and perspective transformation; hidden-line processing; programming assignments using a typical graphics plotting library.

CSI 452-3 Advanced Computing: Variable Topics (3 + 0)

Prerequisite: Permission of instructor

Further topics in computer science and its applications, chosen from: analysis of algorithms, compiler design, simulation, artificial intelligence or others chosen by the instructor. This course may be repeated for credit under different titles.

CSI 459-1 Senior Seminar (1 + 0)

Prerequisite: Senior status (over 100 hours)

This career orientation and research oriented seminar class is designed for computer science seniors. Each student will develop a research paper and make an oral presentation on an approved topic of interest to the student. During the beginning of the term while the students are preparing their papers, invited speakers from local industry and government organizations that employ computer scientists will make presentations on various topics of interest.

Criminal Justice and Criminology**CJC 100-3 Tell Us About the Law (3 + 0)**

A citizen's look at the complex legal society in which we live. An introduction to the various courts, legal agencies, and legislative bodies which are available to each citizen in his or her attempt to live harmoniously in today's urban environment.

CJC 101-3 Introduction to the Criminal Justice System (3 + 0)

The American criminal justice system: its problems and reaction to prevailing social forces. The continuum of criminal justice from police, through the courts, to corrections is surveyed to provide a background for more in-depth study in later courses.

CJC 110-3 Evolutionary Legal Concepts in Criminal Justice (3 + 0)

Evolution of the 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 201-3 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 210-3 Substantive Criminal Law (3 + 0)

Prerequisite: CJC 101

Common law and statutory crimes. Definitions and distinctions between criminal and civil law; assigned criminal law reading; federal and state reports; Colorado criminal code sections.

CJC 212-3 Evidence and Courtroom Procedures (3 + 0)

Prerequisite: CJC 101

The nature, kinds and effect of evidence; rules governing admissibility; testimony of lay and expert witnesses; taking and use of confessions; limitations on search and seizure; hearsay rules and exceptions; becoming an effective witness; direct and cross examination techniques.

CJC 214-3 Criminal Procedure (3 + 0)

Prerequisite: CJC 101

A survey of the procedural law governing criminal cases from arrest through final appeal.

CJC 215-3 Municipal Law (3 + 0)

Prerequisite: CJC 110 or enrollment in Area of Emphasis I

The examination of the municipal laws and codes relevant to the urban society; the origins and enactment of municipal codes; common challenges to the legality of municipal authority, enforcement modalities and creative horizons in municipal law of the future.

CJC 220-3 Law Enforcement Operations (3 + 0)

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.

CJC 291-1-2 Critical Issues in Criminal Justice (Variable Title) (1 + 0, 2 + 0)

Prerequisite: Permission of department chair

A variable titled course focusing student attention upon pertinent criminal justice issues. Students may repeat the course under different title.

CJC 310-3 Logic and the Law (3 + 0)

Prerequisites: CJC 101, 110, 210

The public purpose behind the law, basic legal research, and statutory and case law in relation to definity and validity of statements, vocabulary, and semantic origin. Character traits, contemporary ethics, and implications and consequences of various courses of legal action.

CJC 312-3 Constitutional Law (3 + 0)

Prerequisite: CJC 101

The U.S. Constitution and the function of the U.S. Supreme Court in interpreting that document. 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 314-3 Juvenile Law (3 + 0)

Prerequisite: CJC 110

An analysis of the social-legal operation of the juvenile court, substantive and due process rights of minors; analysis of legal reasoning underlying juvenile law operating at all levels of government.

CJC 320-3 Criminal Justice Administrative Behavior (3 + 0)

Prerequisite: CJC 101 or enrollment in Area of Emphasis IV

A comprehensive analysis of criminal justice institutions, their problems, management, and administration. Roles and values in management, administrative alternatives, and the role of the manager as an agent of change. A critical evaluation of past and present approaches to problem solutions.

CJC 325-3 Criminal Justice Delivery of Services and Decision-Making (3 + 0)

Prerequisite: CJC 320 or permission of instructor

The techniques of decision-making for the assessment of probable outcomes of criminal justice policies are reviewed and analyzed. Emphasis is upon factors influencing policy-making and the management of the decision process, as these impact the delivery of criminal justice services.

CJC 328-3 Classification and Treatment of the Offender (3 + 0)

Prerequisite: CJC 101 or enrollment in Area of Emphasis II

Criminal offender classification concepts, principles, and techniques. Interview, case diagnosis, and use of testing programs as classification aids. Reception and diagnostic centers. Principles of the treatment process. Treatment approaches.

CJC 329-3 Probation and Parole (3 + 0)

Prerequisite: CJC 328

The history, development, principles and operation of probation and parole. Selection, supervision, and prediction of success. Experimental programs and current trends. Preparation of a presentence investigation report.

CJC 334-3 Counseling Skills for Corrections Personnel (3 + 0)

Prerequisites: CJC 328 and CJC 329 or permission of instructor

An introduction to the special problems and needs of the adult offender. Theory and practice techniques that are effective in assessing and creating a positive counseling milieu for the offender both within and outside the prison setting. The development of skills to make the counseling of the offender successful.

CJC 335-3 Seminar in Delinquency Causation, Prevention and Control (3 + 0)

Prerequisite: CJC 101 or permission of instructor

The nature and causes of delinquency and crime, personality and societal processes. An introduction to the typological analysis of juvenile delinquency and an examination of the concepts of prevention, control and prediction.

Course Descriptions

CJC 340-3 Criminal Behavior and Criminal Careers (3 + 0)

Prerequisite: CJC 335

The incidence of characteristics of criminal behavior, including biological, psychological, social, and cultural links to deviant and antisocial behavior. Development of criminal self-conceptions. A research document (typology) employing statistical and qualitative analysis linking the bio-psychosocial aspects of criminal behavior is required. Course includes library research.

CJC 341-3 Criminal Justice and the Social Structure (3 + 0)

Prerequisites: CJC 110

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. An evaluation of the ambivalences in the social processes of law enforcement, courts, and corrections; and the problems of professionalization.

CJC 345-3 Behavior Development and Treatment Plans (3 + 0)

Prerequisite: CJC 340

Basic behavior modification principles and techniques for paraprofessional correctional workers and probation officers. Provides step-by-step instruction plus critical ethical and legal issues.

CJC 350-3 Criminal Investigation (3 + 0)

Prerequisite: CJC 212 or permission of instructor

The history, purpose, techniques and evidentiary uses of criminal investigation.

CJC 351-3 Drug Abuse: Legal Issues and Treatment (3 + 0)

Prerequisites: Upper-level standing or permission of instructor

An intensive study of the legal problems of illicit drug trafficking, control of drug abuse and alternative approaches; with emphasis on major judicial decisions and administrative procedures utilized by criminal and civil authorities; the behavior of the addict, the impact of International conventions and prognosis for future criminal justice system responses.

CJC 370-3 Civil Law for Criminal Justice Administration (3 + 0)

A study of the fundamental concepts found in civil law with an emphasis on civil liability commonly occurring in criminal justice. Designed to help persons in criminal justice and related fields to plan for and prevent civil liability as well as deal with it when it arises.

CJC 371-3

(WMS 331) Women and the Law (3 + 0)

Prerequisite: WMS 101 or permission of instructor

Examination of women's legal rights under the American 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 E.R.A. Credit will be granted for only one of these courses.

CJC 372-3

(CHS 320) Chicano and the Law (3 + 0)

Prerequisite: CHS 102 or permission of instructor

This course offers the student a better understanding of the laws and the legal system and how they relate to individual and community rights. Credit will be granted for only one of these courses.

CJC 385-3 Corporate Security Management (3 + 0)

Prerequisites: CJC 101 and CJC 201

An in-depth examination of the role, techniques, and strategies of corporate security management; the role of management; OSHA regulations and institutional security.

CJC 405-2-3 Criminal Justice Professional Seminar (Variable Title) (2 + 0, 3 + 0)

Prerequisite: Permission of department chair or senior standing

A variable titled course focusing upon the synthesis of concepts and skills. Designed to provide the criminal justice professional theory and criminal justice policy implementations. May be repeated under different titles.

CJC 410-3 Advanced Jurisprudence (3 + 0)

Prerequisites: CJC 210, CJC 212 and CJC 312 or enrollment in Area of Emphasis IV

Analysis and synthesis of legal concepts; nature of law and justice; selected models of legal reasoning; evolution of common law and civil law

systems. Comparative study of current Anglo-American and European juristic thought. Special emphasis on modern realism and criminal justice.

CJC 430-3 Penology (3 + 0)

Prerequisite: CJC 110

The history and development of the American system of prisons; the inmate and the prison community; custody, discipline, treatment, and prison programs for reformation and re-education; alternatives to incarceration.

CJC 431-3 Correctional Law (3 + 0)

Prerequisites: CJC 101, 210, 214, 312 or 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 440-3 Criminal Justice Planning, Policy Analysis, Evaluation and Budgeting Systems (3 + 0)

Prerequisite: CJC 320 or senior standing as CJC major

The 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; the preparation of budget documents and management of the politics of the budget process.

CJC 441-3 Special Topics in Law Enforcement (3 + 0)

Prerequisite: Senior standing

An examination of selected problems, philosophies, and practices affecting criminal justice agencies. A critical evaluation of contemporary standards in the administration of criminal justice programs and their role in fulfilling societal objectives and expectations. Will explore problems in-depth with emphasis on comprehensive reading, observation, and logical problem solving.

CJC 442-5 Practicum in Corrections (3 + 4)

Prerequisite: Permission of instructor or enrollment in Area of Emphasis II

A practicum incorporating various aspects of the correctional system through the medium of individual workshops to further develop skills in administrative and human resource management.

CJC 443-3 Comparative Criminal Justice (3 + 0)

Prerequisite: CJC 101 or enrollment in Area of Emphasis IV

Survey of nationwide and worldwide criminal justice philosophies and practices, contemporary studies of criminal justice organizations and legal systems in major Western and emerging nations.

CJC 461-3 Special Topics in Criminal Justice Administration (3 + 0)

Prerequisite: Junior or senior standing or enrollment in Area of Emphasis IV

Criminal justice administrative roles and objectives, current problems related to employee relations, retention and recruitment, professionalism, policy, discipline, continuing criminal activity, official misconduct and corruption.

CJC 462-3 Special Topics in Corrections Administration (3 + 0)

Prerequisites: Senior standing and permission of instructor

An in-depth study of corrections problems, procedures, or proposals selected in consultation with and approved by a department faculty member. The study must be one which will provide a meaningful learning experience for the student and in an area in which student input can make a contribution. Whenever practicable, the study will involve work with a correctional agency, in addition to research and writing.

CJC 465-3 Ethics for the Criminal Justice Professional (3 + 0)

Prerequisite: CJC major or minor, senior standing, and satisfaction of all Level I and Level II General Studies Course requirements

This course is an in-depth analysis of ethical issues confronting the modern criminal justice professional. Current issues are examined in the light of classical and contemporary standards. Students will articulate an understanding of the symbiotic nature of ethics, morality, and legality through thoughtful application of written and oral skills in the resolution of policy implementation and role conflict. (General Studies Course - Level III, Senior Experience)

CJC 466-1-15 Youth Advocacy Initiatives (0 + 3-45)

Prerequisite: Permission of department chair

Designed to broaden the educational experience of Youth Advocacy students by giving them an opportunity to work with practitioners in the field. Students are assigned to juvenile institutions, shelter care programs, social services, diversion programs, both federal and state. Experience and training in the fundamentals of evaluation, treatment, and dynamic relationships in assigned settings. Students may register twice for this course in different areas of interest, but no more than 15 hours total credit.

CJC 467-5 Research Seminar in Criminal Justice Administration (3 + 4)

Prerequisite: Senior standing; must be arranged during junior year

The application of research methods to the criminal justice administrative process; the tools, techniques and methods of research; writing the research report.

CJC 475-3 Crime Prevention and Loss Reduction (3 + 0)

Prerequisites: CJC 101, CJC 201 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.

Economics**ECO 150-3 Consumer Economics (3 + 0)**

Economic analysis applied to a variety of consumer problems. Topics include determination of family income, consumer durables, taxation and government services, business-consumer relationships and the role of government in protection and regulation.

ECO 201-3 Principles of Economics — Macro (3 + 0)

Prerequisites: Satisfaction of the Level I mathematics requirement and either ENG 101 or the Level I communications course

This course provides an introduction to the principles of economics emphasizing an analysis of the economy as a whole. Topics include the methods used in economics, national income accounting, income determination, and an analysis of monetary and fiscal policies used by government to combat inflation and unemployment. (*General Studies Course - Level II, Social Sciences*)

ECO 202-3 Principles of Economics — Micro (3 + 0)

Prerequisites: Satisfaction of the Level I mathematics requirement and either ENG 101 or the Level I communications course

This course constitutes an introduction to the principles of economics with an emphasis on individual economic units. Topics include consumer choice, production theory, theory of the firm, problems of economic efficiency, and problems of economic concentration. (*General Studies Course - Level II, Social Sciences*)

ECO 250-3 Current Economic Issues (3 + 0)

Analysis of selected economic phenomena of contemporary interest to the general public. Discussion of alternatives facing the people concerned. May be repeated for credit when different issues are studied. Concurrent coursework in Principles of Economics recommended.

ECO 301-3 Intermediate Microeconomic Theory (3 + 0)

Prerequisites: ECO 201, 202

Production, price and distribution theory. Value and distribution theories under conditions of varying market structures. Topics include consumer theory, competitive, oligopoly and monopoly pricing and output behavior, pricing or factors of production and welfare theory.

ECO 302-3 Intermediate Macroeconomic Theory (3 + 0)

Prerequisites: ECO 201, 202

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 310-3 Money and Banking (3 + 0)

Prerequisite: ECO 201

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 315-3 Econometrics (3 + 0)

Prerequisites: ECO 201, 202 and MTH 121 or CMS 330 or permission of instructor

Application of mathematical techniques to problems in economics. Emphasis is on application rather than computational methods of mathematical rigor. The problems of acquiring, measuring, and using economic data are examined.

ECO 320-3 Economic History of the U.S. (3 + 0)

Prerequisites: ECO 201, 202

Historical trends in American economic organizations and institutions and their development from colonial times to present. Topics include problems of national and regional industrial development, economic stability, and trends in income distribution.

ECO 325-3 Labor Economics (3 + 0)

Prerequisite: ECO 202

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 330-3 State and Local Finance (3 + 0)

Prerequisite: ECO 202

The study of the topics related to state and local fiscal problems. Topics include demand for state and local government services, analysis of state and local tax instruments and their incidence, intergovernmental fiscal coordination, program budgeting, and regulation.

ECO 335-3 Urban Economic Analysis (3 + 0)

Prerequisite: ECO 202

Analysis of the structure of urban economic activity and the economic aspects of urban problems. Particular emphasis is on urban poverty, location and differential growth rates of cities, urban transportation problems, housing problems, and selected problems in local government finance.

ECO 340-3 Transportation Economics (3 + 0)

Prerequisite: ECO 202

Economic analysis applied to specific problems of transport. Topics include the effects of location and transportation costs on firm behavior, public policy and regulation of transportation firms, rate structure and public investment in mass transit and other facilities.

ECO 345-3 Environmental Economics (3 + 0)

Prerequisite: ECO 202

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 350-3 Managerial Economics (3 + 0)

Prerequisites: ECO 201, ECO 202

Deals with the application of economic theory to the decision-making process faced both by private and public enterprise. The major emphasis is to provide the theory and tools essential to the analysis and solution of those problems which have significant economic consequences, both for the firm and the society at large.

ECO 355-3 The International Economy (3 + 0)

Prerequisites: ECO 201, 202

Fundamental economic concepts for understanding international economic relationships. Topics include international trade theory, capital movements, international monetary institutions, balance of payments adjustments and the impact of trade policies on economic development and growth.

ECO 415-3 Mathematical Economics (3 + 0)

Prerequisite: ECO 315 or permission of instructor

Mathematical analysis of economic theory. Topics include a wide range of mathematical techniques applied to economic topics such as theory of choice, externalities and public goods, general equilibrium, growth, and stability.

ECO 420-3 Economic History of Europe (3 + 0)

Prerequisites: ECO 201, 202, or ECO 320 or permission of instructor

Evolution of industrial society with emphasis on the growth and development of English industry and commerce.

Course Descriptions

ECO 425-3 Economics of Collective Bargaining (3 + 0)

Prerequisites: ECO 201, 202

An examination of the economic aspects and effects of labor unions and collective bargaining. Topics include models of union behavior, bargaining theories, industrial wage differentials, economic consequences of public unionism and the impact of trade unions on employment, output and inflation.

ECO 430-3 Public Finance (3 + 0)

Prerequisites: ECO 201, 202

An analysis of the effects of taxation, government expenditures, fiscal policy and public debt on resource allocation and income distribution. Topics include taxation, pricing of public services, intergovernmental fiscal relations, and macroeconomic issues in public finance.

ECO 435-3 Regional Economics (3 + 0)

Prerequisites: ECO 201, 202

Introduction to the techniques of regional economic analysis. Regional growth and change and interregional disparities in economic activity are examined. Topics include economic base analysis, input-output analysis and strategies for regional development.

ECO 440-3 Industrial Organization and Public Policy (3 + 0)

Prerequisites: ECO 201, 202

An examination of the structure, conduct, and performance of American industries. Questions of public policy in dealing with problems created by industrial concentration including the regulation of public utilities are examined. Industries are measured against the yardstick of the public interest.

ECO 445-3 International Trade and Finance (3 + 0)

Prerequisites: ECO 355 and FIN 310

General equilibrium analysis provides foundations for examination of the gains from international trade, 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 450-3 Business and Economic Forecasting (3 + 0)

Prerequisites: ECO 201

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 455-3 Comparative Economic Systems (3 + 0)

Prerequisites: ECO 201, 202

An institutional and theoretical analysis of alternative economic systems. Topics include an analysis of the theoretical Marxian system as well as a comparison of capitalism, socialism, and communism.

ECO 460-3 History of Economic Thought (3 + 0)

Prerequisites: ECO 201, 202, 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 and institutional economics. (*General Studies Course - Level III, Senior Experience*)

ECO 465-3 Advanced Monetary Theory (3 + 0)

Prerequisite: ECO 302

An analysis of monetary models and money as a policy determinant and its place in national and international economies. Topics include the importance of interest rates, the effectiveness of monetary and fiscal policy, examination of portfolio balance models, and disequilibrium international models.

ECO 470-3 Law and Economics (3 + 0)

Prerequisites: ECO 201, ECO 202

This course focuses on the interactions between economics and the law. Topics explored include the effect of economic theory on the development of common law, the effect of legal analysis on economic institutions, economic analysis of law, and selected topics in negotiation.

Education

BED 360-2 Principles of Business Education (2 + 0)

Prerequisite: Junior standing or permission of instructor

History of growth, trends, and issues in business education today. Consideration is given to research and the individual business teacher's role in the current American educational environment.

BED 361-3 Methods of Teaching Typewriting/Keyboarding and Word Processing (3 + 0)

A study of the psychology, current philosophy, and successful methods of instruction in typewriting, keyboarding, and word processing for developing a desirable occupational and personal-use competence at the high school and junior college levels.

BED 363-3 Methods of Teaching Bookkeeping, Accounting and Basic Business Subjects (3 + 0)

Prerequisites: ACC 202 and FIN 225, or permission of instructor

A study of the psychology, current philosophy, and successful methods of instruction in bookkeeping, accounting, and miscellaneous basic business courses at the high school and community college levels.

NOTE: BED courses will not be offered after spring 1992.

EDU 100-1 Orientation to Education as a Profession (1 + 0)

The purpose of this course is to assess and advise students according to their prior learning and needs. Content includes assessment of interests, prior learning and present competence in relation to MSCD's expectations; individual and group advisement. Required entry level course for students seeking Early Childhood Certification, major or minor.

EDU 212-3 Elementary Education in the United States (3 + 0)

This course will provide students with an understanding of elementary education within the context of the pre-school through 12th grade perspective from a variety of philosophical, historical, sociological and psychological perspectives.

EDU 213-3 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 the non-physical education majors and minors and cannot be taken in lieu of HPS 250, HPS 252, and HPS 300.

EDU 221-3 Process of Education in Urban Secondary Schools (3 + 0)

Prerequisite: Concurrent enrollment in EDU 222

An analytical assessment of teaching-learning processes with special emphasis on urban secondary schools and on the roles teachers must play in such schools to meet the needs of adolescents from diverse ethnic and cultural backgrounds. Includes a series of self-evaluative experiences.

EDU 222-2 Field Experiences in Urban Secondary Schools (1 + 2)

Prerequisite: Concurrent enrollment in EDU 221

Gives the prospective teacher an opportunity to translate theoretical information from coursework to practical settings in urban secondary schools and to gain better understanding of the social and cultural issues in such schools. A weekly seminar promotes discussion of experiences.

EDU 234-3 Urban Early Childhood Education (3 + 0)

Corequisite: EDU 235 or permission of instructor

This course will introduce the historical and philosophical foundations of early childhood education, as well as current social and educational trends. Emphasis will be on the knowledge, attitudes, and skills essential for continued academic work and field experience.

EDU 235-2 Urban Early Childhood Education Field Experience (1 + 3)

Corequisite: EDU 234

This course provides guided observation and participation in Metropolitan State College of Denver's Child Development Center, putting into practice

the instruction in EDU 234. The emphasis will be on developing observation skills, individual skill in interacting with children of differing ages, ethnic, cultural, and economic backgrounds, and implementing appropriate activities in the daily program of an urban early childhood center.

EDU 236-2 Expressive Arts for the Young Child (1 + 2)

The facilitation of children's creative expression and problem solving in music, movement, art, drama, literature, and other forms is considered. Emphasis is on ways to create a curriculum and maintain a classroom atmosphere and environment that allows creative expression and encourages and supports the creative and/or gifted child.

EDU 264-3 Urban and Multicultural Education (3 + 0)

Prerequisite: EDU 212

This course is designed as an interdisciplinary course to acquaint the student with issues involved in pre-school through 12th grade education (with a special emphasis on the pre-secondary levels) in a changing technological society.

EDU 268-1 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.

EDU 312-3 (CHS 330) Education of Chicano Children (3 + 0)

Prerequisite: CHS 200

Provides the student an opportunity to view and understand the Chicano perspective regarding current public educational policy and its implementation on the schooling process. It presents learning and teaching differences in students and teachers. Credit will be granted for only one of these courses.

EDU 313-3 (AAS 315) Education of the Black Child (3 + 0)

This course is designed to develop an awareness of what it is to be black in this country; how racism has affected education; of what this means in terms of black children, specifically. This course emphasizes community resources, motivational techniques for creative understanding teaching. Credit will be granted for only one of these courses.

EDU 320-3 The Adolescent as a Learner (3 + 0)

Prerequisites: EDU 221, 222, or permission of the instructor and satisfaction of Level I General Studies course requirements

A course in applied educational psychology with special emphasis on adolescents. Allows the beginning teacher at the secondary level to formulate a set of useful classroom practices based on sound psychological principles and consistent with current secondary school practices. (*General Studies Course - Level II, Social Sciences*)

EDU 321-3 Secondary School Curriculum and Classroom Management (3 + 0)

Prerequisites: EDU 221, EDU 222, EDU 320; concurrent enrollment in EDU 361

Provides opportunity for prospective teachers to convert theoretical instruction in teaching methods into practical applications in both real and simulated classroom environments. Requires the integration of skills and theories learned in prerequisite courses.

EDU 322-2 Field Experience in Tutoring and Materials Construction (1 + 2)

Prerequisite: Must be taken concurrently with EDU 321 and EDU 361

Field experiences in tutoring and materials construction to integrate the content, theory, and conceptual aspects of academic and professional teacher education with concrete experiences in secondary schools. A weekly seminar is held to discuss each student's experiences.

EDU 332-3 Care and Nurture of Infants and Toddlers (3 + 0)

Prerequisite: PSY 180

This is a course designed to prepare students to meet the contemporary needs of caring for and stimulating the development of young children 0-29 months of age. Course content will focus on normal infant/toddler

development and appropriate interaction and nurturing techniques that promote optimum growth of children in homes and in child care centers. Cultural and ethnic variations, human relations and the school as a social institution are investigated.

EDU 334-4 Administration of Early Childhood Programs (4 + 0)

Prerequisites: EDU 234 and 235, PSY 180 or equivalent

This class provides students with an overall view of program administration and specific concepts applicable in a variety of early childhood settings: preschools, childcare, infant-toddler care and after school programs. Course content focuses on personnel management, program development, fiscal administration, marketing and fundraising.

EDU 335-3 Assessment and Measurement in the Early Childhood Classroom (2 + 2)

Prerequisite: PSY 180

This course will emphasize the basic foundations for assessing and measuring child growth and learning in the early childhood classroom, with emphasis on techniques and procedures appropriate for use with pre-reading children. Informal and observational methods of assessment will be stressed, along with more traditional teacher-made and standardized tests.

EDU 337-3 Language Arts Curriculum for Early Childhood Education (3 + 0)

Prerequisite: PSY 180

This course covers the characteristics of language, theoretical approaches to and environmental influences on language which influence classroom language curriculum. Students learn how to develop and implement appropriate language curricula, as well as evaluate and use commercial resources.

EDU 341-3 Diagnosis and Evaluation of Exceptional Children (3 + 0)

Prerequisite: Permission of instructor

Selection, use, and interpretation of formal and informal instruments for assessment of handicapped students' abilities.

EDU 342-3 Curriculum Methods and Materials for Teaching the Mentally Retarded K-12 (3 + 0)

Prerequisites: EDU 341 or permission of the instructor

An intensive study of the curriculum sequence and content for mildly, moderately, and severely retarded children based on instructional or performance objectives.

EDU 346-3 Introduction to the Education of the Gifted and Talented (3 + 0)

Prerequisite: EDU 360

Course focus will be on the history, myths, and characteristics of gifted and talented students as learners. Procedures for identification and service models will be presented, as will teaching and learning models for appropriate curriculum.

EDU 347-3 Methods and Materials for Teaching the Trainable Mentally Retarded Child (3 + 0)

A study of characteristics, classification, and development of the trainable mentally retarded child.

EDU 351-4 Perspectives in Bilingual/Bicultural Education (4 + 0)

An introductory course designed to acquaint the student with local, state, and national bilingual-bicultural education programs. Time will be spent in structured observation and interaction in a bilingual classroom.

EDU 360-3 The Exceptional Child in the Classroom (3 + 0)

Prerequisite: PSY 180

Emphasis in this course will be on providing information about various handicapping conditions including child abuse and the development of educational strategies for the handicapped child in the regular preschool through 12th grade classroom

EDU 361-2 Introduction to Educational Technology (1 + 2)

This course is designed to acquaint students with the role of audio-visual media and computers in preschool through 12th grade education. Students

Course Descriptions

will become proficient in the operation of audio-visual, video equipment, and computers as well as the development and/or selection of effective materials and computer software for classroom use. Secondary students should take this course concurrently with EDU 321.

EDU 363-4 Family Life Education (4 + 0)

Prerequisites: EDU 235 and PSY 180

This course provides a basis for teaching family life education in the schools. Emphasis is given to working with adolescents, their parents, to strengthening family relationships, and to providing information on resources for family life.

EDU 364-4 Curriculum and Management: Pre-Primary-6 (3 + 2)

Prerequisites: EDU 212 or 234; PSY 180, EDU 264

Students will analyze instructional and management methods in the elementary school. Students will develop a curriculum unit to be used in a field setting. The course will focus on methods, discipline systems and subject integrations.

EDU 407-3 Designing and Implementing Programs for Adult Learners (3 + 0)

Prerequisites: PAR 205, HSW 202, or permission of instructor

This course prepares students to develop, implement, and evaluate programs for the growing population of adult learners. Emphasis is placed upon a practical design process and upon teaching techniques that are particularly appropriate for the adult learner. Students will have the experience of actually implementing and evaluating a program.

EDU 410-4 Language Arts and Social Studies Curriculum: Pre-primary-6 (3 + 3)

Prerequisites: EDU 212, 264, 364; PSY 180

The purpose of this course is to provide students with an opportunity to understand and utilize concepts, methods and materials pertinent to the teaching of language arts and social studies in the elementary school within the context of the preschool through 12th grade perspective.

EDU 412-4 Science and Math Curriculum: Pre-primary-6 (3 + 3)

Prerequisites: EDU 212, 264, 364; PSY 180, MTH 161; SCI 280

Emphasis on current and experimental programs in the elementary school in mathematics and science, within the context of the preschool through 12th grade perspective. The objectives of the course are to develop the concepts, methods, techniques and materials pertinent to the teaching of mathematics and science. The relationship and integration of mathematics and science into the total school curriculum will be developed.

EDU 419-6, 8, 10 Student Teaching & Seminar: Elementary (K-6) (1 + 12.5, 17.5, 22.5)

Prerequisites: Successful completion of the secondary education requirements, teaching major, approval of the department chair, satisfaction of all Level I and Level II General Studies course requirements, and senior standing.

This course is a supervised full-time field experience in an accredited public or private elementary school providing increasing responsibility for the teaching, supervision, and direction of an identified group of learners (kindergarten to sixth grade). A bi-weekly seminar is a part of the field experience requirement. (General Studies Course, Level III - Senior Experience)

EDU 429-6, 8, 10, 12 Student Teaching and Seminar: Secondary (6-12) (1 + 12.5, 17.5, 22.5, 27.5)

Prerequisites: Successful completion of the secondary education requirements, teaching major, approval of the department chair, and satisfaction of all Level I and Level II General Studies course requirements, and senior standing.

A supervised 10-week field experience in accredited public or private secondary schools providing increasing responsibility for the teaching, supervision, and direction of an identified group of learners (7th to 12th grade). A weekly seminar is a part of the field experience requirement. (General Studies course - Level III, Senior Experience)

EDU 431-3 Parents as Partners in Education (3 + 0)

Prerequisite: PSY 180 or permission of instructor

This course emphasizes current concepts of parent education and involvement. Practical planning and implementation approaches and strategies that stress successful interaction with and education of parents will also be covered. Ways of involving parents for all age and grade levels in the educational system will be covered.

EDU 433-2 Science and Mathematics for the Young Child (1 + 2)

Prerequisites: PSY 180 and EDU 364

Emphasis is on the methods teachers of young children use to build appropriate knowledge and conceptual foundations for science and mathematics. Students will learn how to plan, implement, and evaluate lessons and activities appropriate for children through the second grade.

EDU 435-3 Planning and Organizing the Early Childhood Classroom (3 + 0)

Prerequisite: EDU 337 or EDU 364

Students will learn how to organize, schedule, sequence, and integrate available resources to plan and implement an early childhood program responsive to children's needs. Content areas include planning, classroom organization and management, securing and implementing resources to achieve child and program outcomes, and practice of effective teaching techniques.

EDU 436-4 Cultural Influence on the Socialization of Children (4 + 0)

Prerequisite: PSY 180 or permission of instructor

Studies the socialization of children using a multidisciplinary approach; 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 effects that cultural and socialization patterns have on the family and individual's development. Offered fall semester.

EDU 438-3-6 Teaching Practicum in Pre-primary Early Childhood Education (1 + 5, 12.5)

Prerequisites: EDU 335, 337 or consent of instructor; should be taken concurrently with EDU 435; PSY 180

Guided participation and teaching in a preprimary school or center to prepare students to take charge of an entire class. Students will develop competencies in classroom planning, organization, and management to achieve specific content and process goals in early childhood education.

EDU 439-6-12 Student Teaching and Seminar: Early Childhood (1 + 12.5-27.5)

Prerequisites: Completion of major and teacher certification coursework, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This supervised, full-time field experience in an accredited public or private school provides increasing responsibility for the teacher, supervision, and direction of an identified group of learners (2-8 years). A bi-weekly seminar is part of the field experience requirement. (General Studies Course - Level III, Senior Experience)

EDU 442-3 Methods and Materials for Teaching the Gifted (3 + 0)

Prerequisites: EDU 346 or permission of instructor. To be taken concurrently with EDU 443.

Presents strategies for teaching the intellectually gifted child in the content areas.

EDU 443-1 Field Experience in Gifted and Talented (0 + 2)

Prerequisites: EDU 346 or permission of instructor. To be taken concurrently with EDU 442.

Offers an opportunity to gain hands-on experience in a school setting that serves gifted students.

EDU 444-2 Teaching Thinking Skills to the Gifted (2 + 0)

Prerequisite: EDU 346 or permission of instructor

Course focus includes methods for teaching gifted students to be creative and divergent thinkers.

EDU 451-4 Development of Methods and Materials for the Bilingual/Bicultural Classroom (4 + 0)

Prerequisite: EDU 351 and proficiency in Spanish

Emphasis in planning curriculum for the linguistically and culturally diverse student with emphasis on alternatives in approach and methodology. Time will be spent in structured observation and interaction in a bilingual classroom.

EDU 452-3 Practicum in Bilingual/Bicultural Education (1 + 4)

Prerequisites: EDU 451 and proficiency in Spanish

The course will consider bilingual/bicultural techniques and developing and implementing them in a bilingual/bicultural classroom. Six hours per week in a bilingual school or community setting is required.

EDU 465-3 Current Issues in Education: Variable Topics (3 + 0)

Prerequisite: Advanced students in education

In-depth examination of selected current topics and issues in education. Topics will vary, but all will be of current importance, requiring study of recent writings, research, legislation, etc. May be repeated for credit under a different topic.

EDU 469-1-6 Professional Practicum (0 + 2.5-15)

Prerequisites: Completion of student teaching or permission of college supervisor of student teaching, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A five-week field experience designed cooperatively by the student and a designated MSCD supervisor. Experiences may range from remedial work to internships in education-related organizations. Students may elect variable credit in consultation with their advisor. (General Studies course - Level III, Senior Experience)

SED 340-3 Educational Exceptionality and Human Growth (3 + 0)

Prerequisites: EDU 100, EDU 212, EDU 360

To acquaint the student with the various handicapping conditions and their effect on normal growth and development.

SED 343-3 Field Testing Remedial Techniques in Special Education (1 + 4)

Prerequisites: SED 340, EDU 341, EDU 342, or permission of instructor

Provides a four-hour per week field experience in public or private schools and/or institutional settings. Students also meet for one hour per week at the College.

SED 344-3 Counseling Parents of Exceptional Children (3 + 0)

Prerequisites: SED 340, EDU 341, EDU 342, SED 343, or permission of the instructor

Techniques in counseling, group therapy, and transactional analysis will be taught as methods for promoting adjustment within the structure of the family with an exceptional child.

SED 349-3 Education of the Learning Disabled (3 + 0)

Prerequisites: EDU 360 or permission of instructor

An introductory class to the education of the learning disabled child. Characteristics, identification, and educational implications are explored.

Electronics Engineering Technology**EET 100-2 Electronics for Non-Majors (2 + 0)**

Prerequisite: Elementary algebra

This course emphasizes the aspects and applications of electronics that are useful to persons who are not technically oriented.

EET 106-3 Applied Technical Mathematics (3 + 0)

Prerequisite: High school Algebra or permission of instructor

Designed to assist the student majoring in technology by providing background and understanding in applied mathematics.

EET 110-4 Circuits I (4 + 0)

Corequisites: MTH 140 or MTH 112, and EET 111

A study of direct current sources, resistive circuits, circuit theorems, circuit equations, magnetism and magnetic circuits, capacitance, and inductance.

EET 111-1 Circuits I Laboratory (0 + 2)

Corequisite: Must be taken concurrently with EET 110

An introduction to electrical laboratory procedures and the measurement of basic direct current parameters. Supplements theoretical studies and aids in understanding of basic principles.

EET 112-4 Circuits II (4 + 0)

Prerequisites: EET 110, EET 111, and MTH 140 (or MTH 112 Corequisite)

A continuation of EET 110 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 formulations of classic network theorems, complex network equations, complex power, frequency response, transformers, and two-port network models.

EET 113-2 Circuits II Laboratory (0 + 4)

Corequisite: EET 112

A laboratory course designed to aid student understanding of alternating current circuits with various combinations of resistance, inductance and capacitance.

EET 200-3 Electric Circuits and Machines (3 + 0)

Prerequisite: MTH 112 or MTH 140, PHY 202 or PHY 233

This is an introductory course in electric circuits for non-EET majors. The course covers D.C. and A.C. circuits, generators, motors, transformers, elementary electronic devices and circuits.

EET 214-4 Electronics I (3 + 2)

Prerequisite: EET 112 or EET 113

This course is a study of semiconductor diode and bipolar junction transistor devices and circuits.

EET 215-4 Electronics II (3 + 2)

Prerequisite: EET 214 or EET 301

Junction and MOS field effect transistors, thyristors, and elementary op amps are studied. Also covered is the frequency response to cascaded amplifiers.

EET 231-4 Digital Logic and Telecommunications (3 + 2)

Prerequisites: MTH 151 or CMS 211 or permission of instructor

This is an introduction to computer hardware circuits and telecommunications for non-EET majors. Lecture and lab with memory circuits and other basic digital logic devices.

EET 232-3 Digital Circuits I (2 + 2)

Prerequisite: EET 214 or 301 or permission of instructor

Logic circuits with gates are analyzed and designed using Boolean Algebra, Karnaugh maps, and computer version of Quine McCluskey. Also studied are logic families, flip-flops, counters, registers, shift registers, one-shots, and Schmitt triggers.

EET 234-2 Technical Programming Applications (2 + 0)

Prerequisite: EET 112

An introductory course designed to introduce the student to digital computers and their usefulness for solution of technology problems using high level languages. Emphasis is given to problems from the field of electronics technology.

EET 235-3 Advanced Technical Programming (3 + 0)

Prerequisites: EET 234 and EET 214

This is an advanced level programming course that uses the C language and UNIX. Methods of solving circuit and electronics problems using the computer are studied.

EET 280-3 Cooperative Education (1 + 6)

Prerequisites: Formal Admission to Co-op Education Program and permission of department chair

A seminar course allowing working student to share work experience and to report upon particular projects.

EET 301-4 Industrial Electronics (3 + 2)

Prerequisite: EET 112 or 200

This course covers the application of transistors, op amps, and other electronics devices, both analog and digital. Not for EET majors.

EET 311-4 Advanced Circuits I (4 + 0)

Prerequisites: EET 215, EET 234 and MTH 241

An advanced course in circuit analysis which requires previous knowledge of basic electric circuits. Calculus and the Laplace transform are used.

Course Descriptions

EET 312-4 Advanced Circuits II (3 + 2)

Prerequisite: EET 311, or permission of instructor

An advanced course on active circuits, with emphasis on operational amplifiers. Topics include power supplies, waveform generators, active filters, and nonlinear circuits. Optoelectric devices are introduced.

✓ EET 333-3 Digital Circuits II (2 + 2)

Prerequisite: EET 232

Continuation of EET 232. Memory types and circuits, debounce circuits, noise problems, digital arithmetic, ALU, APU, BCD, MUX and DEMUX. Much of the course will be design methods for EPROM based state machines.

EET 334-4 Minicomputer Programming and Operation (4 + 0)

Prerequisites: EET 234, EET 336

In this course, students learn to program a VAX computer in Assembly language.

✓ EET 336-3 Introduction to Microprocessors (2 + 2)

Prerequisites: EET 234, EET 333

An introduction to microprocessor hardware and software, including machine language assembly with a cross-assembler.

EET 341-3 Electric Machines (2 + 2)

Prerequisite: EET 215 or EET 301

This course is a study of motors and generators and their application.

EET 342-3 Electric Power Distribution (3 + 0)

Prerequisite: EET 215 or EET 301

This course is a study of distribution techniques and equipment employed in electric power distribution and control.

EET 343-3 Power Generation Using Solar Energy (2 + 2)

Prerequisites: EET 214 and EET 234

Application of solar power generation using photovoltaic cells, wind machines, and thermal engines.

EET 362-3 Analog and Digital Communications (3 + 0)

Prerequisite: EET 215 or EET 301

This is an introduction to communications systems. It includes information theory, channel capacity, A/D and D/A techniques, modulation (AM, FM, and digital), noise sources, quantization, and transmission lines including Smith Charts.

EET 363-3 Electromagnetic Fields (3 + 0)

Prerequisites: EET 311 and EET 362

The course covers mathematical concepts of static and dynamic electromagnetic fields. Included are planewave propagation in lossless and lossy media, waveguide propagation, and radiation principles.

EET 364-3 Communications Lab (3 + 0)

Prerequisite: EET 362

This is a laboratory course covering the fundamentals of analog and digital communication. Experiments are on modulation, noise, transmission lines, antennas, fundamental communication systems, lasers, and fiber optics.

EET 367-3 Measurements for Communications Systems (1 + 4)

Prerequisites: EET 234, EET 362, and EET 364

In this course measurements are made on communications circuits including SNR, noise figure, impedance, admittance, phase, power, frequency, spectrum analysis, and fields at high frequencies.

EET 371-3 Automatic Control Systems I (3 + 0)

Prerequisites: EET 215, EET 234, and EET 311

Analysis of classical linear continuous-time control systems; Laplace transform; Bode plots; stability; design of compensators: PID, lag, lead, and lag-lead.

EET 372-1 Control Systems Laboratory (0 + 2)

Prerequisite: EET 371

Lab course in the analysis and design of control systems using the classical approach.

EET 380-3 Cooperative Education II (1 + 6)

Prerequisites: Formal admission to Co-op Education Program and permission of department chair and EET 280

A continuation of EET 280.

✓ EET 410-1 Senior Project I (1 + 0)

Prerequisites: EET 312, EET 336, COM 261, ENG 102, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

Extensive design project to be planned in consultation with faculty advisor(s). Interface with industry and governmental agencies is encouraged. (General Studies Course, Level III - Senior Experience)

EET 411-2 Senior Project II (2 + 0)

Prerequisites: Completion of EET 410 with a grade of "C" or better, SPE 101, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

A continuation of Senior Project I. Students complete design and construction of selected projects. Oral and written reports are required. (General Studies Course, Level III - Senior Experience)

EET 432-3 Digital Filters (2 + 2)

Prerequisites: EET 234, EET 311, MTH 241

Introduction to digital filters as applied in digital signal processing and sampled data control systems.

EET 433-3 Data Communications (2 + 2)

Prerequisites: EET 333, and EET 334 or EET 336

This course covers methods of local and distant digital communications systems including standards and hardware used for transmitting digital data either synchronously or asynchronously.

✓ EET 434-3 Interface Techniques (2 + 2)

Prerequisites: EET 333 and EET 336

This course covers interfacing techniques with computers, peripherals, and other digital circuits.

EET 454-3 Advanced Linear Circuit Design (2 + 2)

Prerequisites: EET 234, EET 312

Current applications and designs of advanced linear and industrial/instrumentation analog circuits using newer and more complex integrated circuit components and circuit design techniques, including preparation of suitable computer design programs.

EET 462-3 Advanced Communications Systems (3 + 0)

Prerequisite: EET 363

This course is on the analysis and design of advanced communication systems including HF, VHF, UHF, microwave, spread spectrum, optical, video, and satellite systems.

EET 463-3 Space and Satellite Communications (2 + 2)

Prerequisite: EET 363

This course covers the application of basic communications, power, and microwave theory to space and satellite communication systems.

EET 464-3 Communication Circuit Design (3 + 0)

Prerequisite: EET 363

This course covers the analysis and design of radio frequency electronic circuits for communication transmission and reception.

EET 471-4 Automatic Control Systems II (4 + 0)

Prerequisites: EET 336 and EET 371

Digital control system design using both classical and modern control theory. Control laws and state observers are designed.

EET 473-3 Robotics (3 + 0)

Prerequisites: EET 312, EET 336, and either PHY 201 or PHY 231

This is a course on the analysis and design of robots. Included in this course are robot kinematics, inverse kinematic, kinetics, sensors, actuators, and industrial applications.

English

ENG 101-3 Freshman Composition: The Essay (3 + 0)

Prerequisite: Minimum performance standard score on the writing preassessment placement test

A course in the process and kinds of writing frequently required in college: analytical reports, informative and persuasive compositions, and essay examinations. (*General Studies Course - Level I, Composition*)

ENG 102-3 Freshman Composition: Analysis, Research, and Documentation (3 + 0)

Prerequisite: ENG 101

A course in the process and skills that produce the substantial documented paper. The course includes an introduction to library use, to research techniques, and to documentation fundamentals. The student can expect to do shorter essays and assignments designed to develop skills important to the research and documentation process and one longer, documented paper. (*General Studies Course - Level I, Composition*)

ENG 107-3 English Usage and Grammar (3 + 0)

For students wishing an intensive review of current usage practices in English: spelling, punctuation, capitalization, and grammar. Focuses particularly, but not exclusively, on those practices recognized and accepted as Standard Edited English. This course stresses the practical applications of usage and grammar in contrast to the theoretical content of ENG 202. Suitable for non-English majors.

ENG 110-3 Introduction to Literature (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment 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 Course, Level II - Arts and Letters*)

ENG 111-3 Introduction to Fiction (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course is a critical introduction to selected short fiction, with an emphasis on twentieth-century British and American writings. (*General Studies Course, Level II - Arts and Letters*)

ENG 112-3 Introduction to Drama (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This is a course in drama appreciation: a study of 6-10 plays representing different genre and periods, presented within the framework of a modern perspective. The course has exercises in multiple sensory drama experience. It is recommended for General Studies and required for the dramatic literature minor. (*General Studies Course, Level II - Arts and Letters*)

ENG 114-3 Literature of Popular Interest (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing and math preassessment placement tests

Courses which 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, tales of terror. May be repeated for credit under different titles for elective credit.

ENG 131-3 Introduction to Shakespeare (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course is a multi-sensory introduction to Shakespeare especially designed for a general audience. (*General Studies Course, Level II - Arts and Letters*)

ENG 201-3 The Nature of Language (3 + 0)

This course is an overview of the 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 202-3 Systems of English Grammar (3 + 0)

This course is an intermediate study of the principles of English grammar through an examination of basic principles of syntactic theories. It covers a selection of principles from structural linguistics and introduces students to the basics of generative-transformational syntactic theory. It is also an analysis of structures and discussion of several theories underlying systematic language study: sentence patterns, parts of speech, form class paradigms, function class groups, phrases, clauses, sentences;

introduction to morphology, phrase structure grammar, early theory generative-transformational syntax. This is not a course in English usage.

ENG 211-3 World Literature: Homer to Cervantes (3 + 0)

Prerequisite: ENG 101 or permission of instructor

Literature of Greece, Rome, and other European countries through the Renaissance. Recommended as the beginning course for English majors and minors.

ENG 212-3 World Literature: Moliere to Sartre (3 + 0)

Prerequisite: ENG 101 or permission of instructor

Continental literature since the Renaissance. Recommended as a beginning course for English majors and minors.

ENG 221-3 American Literature: Bradford to Whitman (3 + 0)

Prerequisite: ENG 101 or permission of instructor

American literature from the Colonial Period through Walt Whitman. Recommended as a beginning course for English majors and minors.

ENG 222-3 American Literature: Dickinson to Oates (3 + 0)

Prerequisite: ENG 101 or permission of instructor

American literature from Emily Dickinson to the present. Recommended as a beginning course for English majors and minors.

ENG 231-3 British Literature: Beowulf to Shakespeare (3 + 0)

Prerequisite: ENG 101 or permission of instructor

British literature from the Old English period through Shakespeare. Recommended as a beginning course for English majors and minors.

ENG 232-3 British Literature: Donne to Johnson (3 + 0)

Prerequisite: ENG 101 or permission of instructor

British literature from Donne through the 18th century. Recommended as a beginning course for English majors and minors.

ENG 233-3 British Literature: Blake to Beckett (3 + 0)

Prerequisite: ENG 101 or permission of instructor

British literature from the Romantic period to the present. Recommended as a beginning course for English majors and minors.

ENG 240-3 Interpreting Literature: Poetry, Fiction Drama (3 + 0)

Prerequisite: ENG 101 or permission of instructor

An entry course required for the English major or minor and designed to introduce the student of literature and writing to traditions, concepts, and techniques of literary form important to the understanding of fiction, drama, and poetry. Students will practice developing interpretations and writing brief essays communicating their interpretations to others.

ENG 241-3

(CHS 201) Survey of Chicano Literature (3 + 0)

Prerequisite: CHS 100 or permission of instructor

This course reviews the major literary genres associated with Chicano creative expression, including poetry, drama, and the novel. Credit will be granted for only one of these courses. Suitable for non-English majors.

ENG 242-3

(CHS 202) Chicano Poetry and Drama (3 + 0)

Prerequisite: CHS 201 or permission of the instructor

This course is an intensive study of Chicano poetic and dramatic arts as it attempts 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 only be granted for only one of these courses. Suitable for non-English majors.

ENG 244-3 Myth, Symbol, and Allusion in Literature (3 + 0)

Prerequisite: ENG 101 or permission of instructor

An entry course required for the English major or minor and designed to introduce the students of literature and writing to myths, symbols, and allusions commonly employed in British, American, and continental literature.

ENG 251-3 Intermediate Composition (3 + 0)

Prerequisite: ENG 102 or permission of instructor

Examination of rhetorical strategies used in writing effective nonfiction

Course Descriptions

prose. Exercises and discussion on, production and evaluation of, essays, critical analyses, and documented papers. Editing techniques and manuscript form conventions. Appropriate for non-English majors.

ENG 252-3 Introduction to Creative Writing (3 + 0)

Prerequisite: ENG 102 or permission of instructor

Lectures, group discussions, and exercises in writing fiction, poetry, and drama.

ENG 301-3 Modern English Language Studies (3 + 0)

Prerequisite: ENG 201 or permission of instructor

An experience in discovery: The patterns of sounds, words, and sentences of English are mastered through a transformational/generative grammar approach. Other grammars are also introduced. Recommended for humanities and social science majors.

ENG 302-3 History of the English Language (3 + 0)

Prerequisites: Six semester hours of English above 102, 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) which have combined to make the English language what it is today, including an analysis of regional and dialectal speech.

ENG 303-3 Semantics (3 + 0)

Prerequisite/Corequisites: Completion of Level II General Studies lower division literature course (Eng 110, 111, 112, or 131), or ENG 201 (The Nature of Language), or permission of instructor; satisfaction of Level I General Studies Course requirements

Students will study the origins of meaning in natural language, examination of significant linguistic units that carry meaning, and the formal/informal systems used to 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 Course, Level II - Arts and Letters)

ENG 310-3 Roots of British Literary Tradition (3 + 0)

Prerequisite: Six semester hours of English beyond ENG 102

An intensive study of Chaucer, Shakespeare, and Milton designed to give the student a thorough understanding of the principal influences of the English language literary heritage. Required for English majors, Literature and Creative Writing emphasis, for English Education majors, and for English minors.

ENG 321-3 Development of American Drama (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A study of the development of dramatic literature in the United States from 1714 to the present and of its importance to American literature and culture.

ENG 323-3 Development of the American Novel (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A study of developing practice and theory together with critical evaluation of the American novel from the early nineteenth century to the 1940's.

ENG 324-3

(AAS 324) African American Literature (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

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 of these courses. Suitable for non-English majors.

ENG 331-3 Development of British Drama: Mysteries to Melodrama (3 + 0)

Prerequisite: Six semester hours of English above 102

The study of representative plays from the Medieval period to the present and of their importance to literature and culture.

ENG 333-3 Development of the British Novel (3 + 0)

Prerequisite: Six semester hours of English above 102

A study of developing practice and theory together with critical evaluation of the British novel through the nineteenth century.

ENG 340-3 Development of Modern Poetry (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A study of the theory, prosody, and poetry of the twentieth century.

ENG 341-3 Masterpieces of Continental Literature (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

Major works by European writers from the classical period to the present. May be repeated for credit if different content is specified.

ENG 342-3 The English Bible as Literature (3 + 0)

Prerequisite/Corequisites: Completion of Level II General Studies lower division literature course (Eng 110, 111, 112, or 131), or permission of instructor; satisfaction of Level I General Studies Course requirements

A study of the English Bible with emphasis on the literary forms and the cultural traditions of the Old and New Testaments. Suitable for non-English majors. (General Studies Course, Level II - Arts and Letters)

ENG 343-3 Classical Mythology (3 + 0)

Prerequisite/Corequisites: Completion of Level II General Studies lower division literature course (Eng 110, 111, 112, or 131), or permission of instructor; satisfaction of Level I General Studies requirements

A study of Greek and Roman myths, their parallels in other mythologies, and their occurrence in literature and criticism. By tracing the modifications of various myths from their most ancient forms to today's poems, the course will acquaint students with the continued vitality of mythology. (General Studies Course - Level II, Arts and Letters)

ENG 345-3 Literature from Writings in the Sciences (3 + 0)

Prerequisite: Permission of instructor

Study of scientific works of literary merit written by eminent scientists for the general reader.

ENG 346-3 Children's Literature (3 + 0)

Prerequisite/Corequisites: Completion of Level II General Studies lower division literature course (Eng 110, 111, 112, or 131), or permission of instructor; satisfaction of Level I General Studies Course requirements

A study of all levels and types of children's literature for the student who is interested in literature per se, and for the student who is planning to become a teacher. An introduction to types and varieties of literature for reading to children as well as reading by children. (General Studies Course, Level II - Arts and Letters)

ENG 347-3 Literature for Adolescents (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A critical survey of literature for adolescents, including the contemporary adolescent novel, current poetry and drama, and multicultural/ethnic literature. Also focuses on censorship, book selection, nonsexist books, and non-fiction. Recommended for Reading, English and Secondary majors.

ENG 348-3

(CHS 340) The Chicano Novel (3 + 0)

Prerequisite: CHS 201 or permission of instructor

This course deals with origins, themes and techniques which 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 of these courses. Suitable for non-English majors.

ENG 349-3

(CHS 341) Chicano Folklore of the Southwest (3 + 0)

Prerequisite: CHS 200 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 of these courses. Suitable for non-English majors.

ENG 351-3 Advanced Composition (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A study of the theoretical and ethical bases of persuasive writing and practice in the principles and techniques which effect constructive persuasion in a pluralistic society. Suitable for non-English majors.

ENG 352-3 Creative Writing Workshop (Fiction, Poetry, or Drama) (3 + 0)

Prerequisite: ENG 252 or permission of instructor

Group discussions and supervised projects in writing imaginative literature. May be repeated for credit for each of the genres.

ENG 353-3 Techniques of Critical Writing (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

Methods and practice in writing critical responses to art forms, including literature, theatre, and film. The course provides experience in writing journalistic and academic criticism. Suitable for non-English majors.

ENG 361-3 Teaching English in Secondary Schools (3 + 0)

Prerequisite: Junior standing or permission of instructor

Teaching English in junior and senior high schools; investigation and preparation of materials and media; practice of current techniques.

ENG 362-3 Teaching Composition in Secondary Schools (3 + 0)

Prerequisite: ENG 361 or permission of instructor

Analysis, evaluation, and application of the major systems of teaching composition, techniques of correction and revision, and motivation for writing.

ENG 363-3 Teaching Communication (3 + 0)

Prerequisite: ENG 361 or 362

A course designed to equip persons to teach communications and communication skills at the secondary school level; to analyze communication networks, problems, roles, and interaction in various instructional environments; to facilitate and implement effective communication in teaching and learning. Recommended for anyone responsible for improving communication and communication skills.

ENG 367-3 Writing Tutor (3 + 0)

Prerequisites: ENG 101, ENG 102, 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 370-3 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

This course will examine questions about law, justice, and morality through an examination of selected pieces of European, English, and American literature.

ENG 401-3 Linguistic Studies (Variable Topics) (3 + 0)

Prerequisite: Any one of the following: ENG 201, 301, 302, 303

Theories and applications: the seminar topics range over the extensive research in linguistic studies from grammars to stylistics and from sidewalk linguistics to speech acts. Individualized projects. May be repeated for credit with different subtitles.

ENG 411-3 Advanced Studies in Literature (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

The study of selected works chosen as representative of an important "school" or group within a period. May be repeated for credit under different titles.

ENG 412-3 Selected Themes in Literature (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A study of literary works selected as significant expressions of a theme, idea, or mode. The works studied are not necessarily restricted to a particular period or country. May be repeated for credit under different titles.

ENG 413-3**(CHS 420) Major Authors (3 + 0)**

Prerequisite: Six semester hours of English above 102, or permission of instructor

The course traces in representative works the artistic and intellectual development of one or two important writers. May be repeated for credit under different titles.

ENG 414-3 Modern Continental, British, and American Drama (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

A comprehensive survey of the important dramatic works of the last hundred years with emphasis on trends and developments. Plays by German, Scandinavian, Russian, Italian, Spanish, French, British, and American playwrights are included.

ENG 431-3 Shakespeare: Comedies, Histories, Sonnets (3 + 0)

Prerequisite: Six semester hours of English above 102, 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*, 1 & 2 *Henry IV*, *Henry V*, and selected sonnets.

ENG 432-3 Shakespeare: Tragedies and Ethical Problem Plays (3 + 0)

Prerequisite: Six semester hours of English above 102, 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*, *Cymbeline*.

ENG 452-3 Advanced Creative Writing (3 + 0)

Prerequisite: ENG 352 or permission of instructor

Individual instruction and independent projects in writing fiction, poetry, and drama; instruction in submitting work for publication. May be repeated for credit with permission of instructor.

ENG 461-3 Theories and Techniques in Literary Criticism (3 + 0)

Prerequisite: Six semester hours of English above 102, or permission of instructor

Studies in the major schools of literary criticism from Plato and Aristotle to the twentieth century.

ENG 463-6 Composition Teaching Workshop (6 + 0)

Prerequisites: Completion of ENG 102 and ENG 361 (or equivalents) or permission of instructor

This is an intensive workshop in the process of writing, composition theory and practice, development of writing skills, forms and evaluation of composition, teaching techniques, and writing practices. It is for pre-service and in-service teachers.

ENG 465-3 Teaching Composition in Elementary School (3 + 0)

Prerequisites: ENG 351, Junior standing, or permission of instructor

This course incorporates the writing process, developmental growth and fluency of K-6 writers, writing skills and assessment, sequential composition curricula, and techniques and materials for teaching composition. Students will develop and demonstrate composition lessons and activities.

ENG 466-3 Teaching Literature and Language K-6 (3 + 0)

Prerequisites: ENG 302, ENG 346, junior standing 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 types of literature and on the forms, functions, and uses of language, grammar, and usage. Students will prepare and present lessons and activities in both areas.

Finance

FIN 225-3 Personal Money Management (3 + 0)

Prerequisite: Sophomore standing

This is a survey course 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 only FIN 225 or FIN 315. Business students should take FIN 315.)

Course Descriptions

FIN 301-3 Financial Markets and Institutions (3 + 0)

Prerequisite: Junior standing

This course provides a framework for understanding our financial environment, including markets, institutions, and securities. Each type of market and how financial institutions utilize it, its internationalization, and recent events that have affected it are studied.

FIN 310-3 International Money and Finance (3 + 0)

Prerequisite: Junior standing

This course covers the basics of the foreign exchange market, the balance of payments, parity conditions in international finance, foreign exchange risk and forecasting, the financing of international activities, and international capital flows. The course will focus on the financial management of the multinational firm.

FIN 315-3 Personal Financial Planning (3 + 0)

Prerequisite: Business major with junior standing

This course is an introduction to the field of personal financial planning for business students. The student will study money management, investments, insurance, employee benefits, retirement planning, and estate planning as they relate to individual and family financial planning. (Credit will be granted only for FIN 225 or FIN 315. Business students should take FIN 315.)

FIN 330-3 Managerial Finance (3 + 0)

Prerequisites: ACC 202, ECO 201, ECO 202 and junior standing

This is a study of the dynamic environment of financial management using the following analytical skills: financial analysis, forecasts, cash and capital budgeting, operating and financial leverage, the cost of capital, and dividend policy.

FIN 342-3 Principles of Insurance (3 + 0)

Prerequisite: Junior standing

This course explores the underlying principles of insurance, and the need for insurance in a progressive, dynamic society. It includes an introductory examination of insurable risks, uses of insurance, as well as a study of the important coverages that are currently available.

FIN 343-3 Property and Liability Insurance (3 + 0)

Prerequisites: FIN 342 and junior standing

This course is an examination and study of the principles and uses of property and liability insurance. It also includes types of property and liability insurance, products selection, classification of property and liability risks, and organization and regulation of property and liability insurers.

FIN 344-3 Life and Health Insurance (3 + 0)

Prerequisites: FIN 342 and junior standing

This course is an examination and study of the principles and uses of life and health insurance. It also includes types of life and health risks, and organization and regulation of life and health insurers.

FIN 345-3 Retirement Planning and Employee Benefits (3 + 0)

Prerequisite: Junior standing

This is a study of the principles of retirement planning and employee benefits, including the determination of financial needs at retirement. The various employee benefits and retirement plans for employees and self-employed persons will be studied.

FIN 346-3 Risk Management (3 + 0)

Prerequisites: FIN 342 and junior standing

This course is an analysis of risk identification and evaluation, measurement of protection, and methods of handling risk. It also includes insurance buying, loss financing, and international insurance exposures.

FIN 360-3 Investments (3 + 0)

Prerequisites: FIN 330 and junior standing

This course is a survey of the organization and regulation of security markets; security analysis and valuation; and principles of portfolio management from the viewpoint of the individual investor.

FIN 365-2 (ACC 365) Electronic Spreadsheets on the Microcomputer (2 + 0)

Prerequisite: Junior standing

This course teaches the student how to create and use electronic spreadsheets (Lotus 1-2-3) on the microcomputer. Credit will be granted for only one of these courses.

FIN 370-3 The Management of Commercial Banks (3 + 0)

Prerequisites: FIN 301 and junior standing

An inquiry into the management aspects of commercial banking. This is a comprehensive study of the various functions, activities, and operations of commercial banks. The major topics covered are: banking structure, organization and management, lending, investing, trust services, international banking, capital structure, and profitability.

FIN 380-3 Real Estate Practice and Law (3 + 0)

Prerequisite: Junior standing

This course surveys the principles and practices of real estate. Subject areas treated include the nature and description of real estate, real property interests and ownership, finance, appraisal, contract and agency law, and real estate investment.

FIN 381-3 Advanced Real Estate Practice and Law (3 + 0)

Prerequisites: FIN 380 and junior standing

This course builds upon the material covered in FIN 380 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 382-3 Real Estate Finance (3 + 0)

Prerequisites: FIN 380 and junior standing

This course is designed to provide the student and real estate professional with a basic understanding of the instruments, methods, procedures, institutions, and money markets involved in the financing of real property. There is special emphasis on the mathematics of real estate financing and practical problems.

FIN 385-3 Intermediate Finance (3 + 0)

Prerequisites: Junior standing, FIN 301, FIN 330

This is an advanced, integrated study of the theory, concepts, and techniques encompassed by financial markets, institutions, and investments as applied in managerial finance. Computer usage is required, especially spreadsheet applications, such as Lotus 1-2-3.

FIN 400-3 Management of Financial Institutions (3 + 0)

Prerequisites: FIN 301 and senior standing

The purpose of this course is to provide an integrated approach for the financial management of financial institutions. With this objective, the course concentrates on providing the theoretical framework and techniques of financial management, recognizing the rapid changes taking place in the institutional environment.

FIN 410-3 International Financial Management (3 + 0)

Prerequisites: FIN 310, FIN 330, ECO 355, and senior standing

The purpose of this course is to provide a conceptual framework to analyze business financial decision making in the international setting. All the traditional areas of corporate finance are explored, especially working capital management, capital budgeting, cost of capital and financial structure, and evaluation and control of operations. These topics are examined under conditions of multiple currencies, frequent exchange rate changes, varying rates of inflation, differing tax systems, multiple money markets, exchange controls, segmented capital markets, and political risks.

FIN 450-3 Analysis of Financial Statements (3 + 0)

Prerequisites: FIN 330 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 460-3 Securities Analysis (3 + 0)

Prerequisites: FIN 360 and senior standing

In-depth study for the student of investments, employing advanced approaches to security valuation and security markets forecasting.

FIN 470-3 Special Topics in Finance (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 in the curriculum. Typically, this course will focus on current issues or developments in finance, and the content will vary. The course may be repeated with a different title.

FIN 475-3 Seminar in Personal Financial Planning (3 + 0)

Prerequisites: FIN 342, FIN 345, FIN 360, ACC 309 or ACC 410, and senior standing

This is a senior-level integrative course for finance majors concentrating in personal financial planning. It brings together the various aspects of financial planning with heavy emphasis on case studies.

FIN 484-3 Real Estate Appraisal (3 + 0)

Prerequisites: FIN 380 and senior standing

This course is designed to teach the student various methods of estimating real property value. The primary emphasis will be to apply these methodologies to single family residences, but some coverage is provided on commercial real estate.

FIN 485-3 Commercial and Investment Real Estate (3 + 0)

Prerequisites: FIN 380, FIN 382, and senior standing

This course studies real estate as an investment medium, the techniques used in evaluating and comparing the investment quality of property, the pros and cons of exchanging, and certain of the tax factors relevant to real estate investment.

FIN 495-3 Financial Strategies and Policies (3 + 0)

Prerequisites: Senior standing, FIN 385, and completion of all business core courses

This is an integrated, case study approach to financial management. Emphasis is on presentation of analyses 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.

Fire Services Administration

FSA 301-3 Advanced Fire Services Administration (3 + 0)

This course is a study of the organization and management of fire services including new technologies, changing organizational structures, fire/EMS/HAZMAT planning, department functions, staffing communications, labor relations, and code and legislation enforcement.

FSA 302-3 Political and Legal Foundations of Fire Protection (3 + 0)

This course covers the legal basis for the police power of government/ fire service related to public safety; legal limitations and responsibility; liability of fire service organizations and personnel; review of personnel systems and judicial decisions; and, implications of product liability cases in fire services.

FSA 303-3 Analytic Approaches to Public Fire Protection (3 + 0)

The systems approach to public fire protection services including fire suppression and prevention, is studied. Stress is placed on information gathering, analysis, presentation and interpretation, simulation, resource allocation, planning, evaluation, and writing objectives. Illustrative case studies and models are studied.

FSA 401-3 Community and the Fire Threat (3 + 0)

This course is a study of communities and their impact on the fire service problems.

FSA 402-3 Disaster and Fire Defense Planning (3 + 0)

An examination of the concepts and principles of community risk assessment, regional and cooperative procedures and plans is the primary focus of this course. Also included is the relationship of structural, climatic, and topographical variables to multiple fires, conflagrations, natural and man-made disasters, pre- and post-occurrence factors, communications, planning, organizing, coordination, command, and logistics.

FSA 403-3 Human Resource Management for the Fire Services (3 + 0)

This course concerns personnel practices and management procedures in the fire services. Specific topics include collective bargaining, binding arbitration, applicable legislative procedures, administrative and supervisory procedures, promotion, personnel development, career and incentive programs, and the validation of physical and mental requirements.

French

FRE 101-5 Elementary French I (5 + 0)

A beginner's course, with emphasis on pronunciation, speaking, and understanding, supplemented by grammar, reading, and writing.

FRE 102-5 Elementary French II (5 + 0)

Prerequisite: FRE 101, or one or two years of high school French
Continuation of FRE 101. (General Studies Course, Level I - Communications)

FRE 111-3 Basic Conversational French I (3 + 0)

A course designed to teach the essentials of the French language through a conversational approach.

FRE 112-3 Basic Conversational French II (3 + 0)

Prerequisite: FRE 111 or equivalent or permission of instructor
A continuation of FRE 111.

FRE 201-3 Intermediate French I (3 + 0)

Prerequisites: FRE 101 and FRE 102, or equivalent

This is the first semester of a two semester intermediate French language sequence specifically designed to strengthen grammatical skills and proficiency in speaking, understanding, reading, and writing. This course will also introduce students to a sampling of social, cultural, and literary topics central to the understanding of France and French speaking peoples.

FRE 202-3 Intermediate French II (3 + 0)

Prerequisites: FRE 101 and FRE 102, or equivalent

This continuation of FRE 201 is designed to continue strengthening grammatical skills and proficiency in speaking, understanding, reading, and writing. It will also present further examples of social and cultural topics central to an understanding of France and French speaking peoples.

FRE 211-3 French Reading and Conversation (3 + 0)

Prerequisite: One year of college French or equivalent, or permission of instructor

This course helps build oral proficiency at intermediate and advanced levels through a variety of personalized interactional activities. These activities are based upon readings appropriate to each stage of linguistic development.

FRE 301-3 Introduction to Advanced French Studies (3 + 0)

Prerequisites: FRE 201 and FRE 202 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 socio-cultural and literary issues.

FRE 311-3 Survey of French Literature I (3 + 0)

Prerequisite: FRE 301 or instructor's permission

This introduction to French literature from the Middle Ages to the Enlightenment gives an insight to French literary, historical, and cultural development through selected reading and discussion in French.

FRE 312-3 Survey of French Literature II (3 + 0)

Prerequisite: FRE 301 or permission of instructor

This introductory course in nineteenth and twentieth century French literature emphasizes the evolution of literary style and content from Romanticism to contemporary literary schools. Readings and discussion take place in French.

FRE 315-3 French Phonetics: Theory and Practice (3 + 0)

Prerequisite: Two years of college French or equivalent, or permission of instructor

This course is designed to teach the essential facts of French phonology. It is aimed at improving students' pronunciation and articulation and introducing them to the field of linguistics.

FRE 331-3 Advanced French Composition and Grammar (3 + 0)

Prerequisites: FRE 201, 202, or equivalent, or permission of instructor

This course is designed to reinforce and further develop the writing skills, thus enabling the student to combine accuracy with imagination and inventiveness in writing French.

FRE 332-3 Advanced Conversation (3 + 0)

Prerequisite: FRE 201 or 202 or equivalent, or permission of instructor

This course is designed to broaden the student's skills in French conversation. She or he will learn more advanced structures of the language as well as other aspects of grammar and idiomatic expressions.

Course Descriptions

FRE 351-3 French Culture and Civilization (3 + 0)

Prerequisites: Two years of college French or equivalent, or permission of instructor; and satisfaction of Level I General Studies Course requirements

This course, conducted in French, surveys those elements which have contributed to the unique French lifestyle. This will include emphasis not only on politics, history, art, geography, philosophy, and current social patterns, but also a look at French preferences in entertainment as well: customs, food, and wine. (*General Studies Course, Level II - Arts and Letters*)

FRE 440-3 Existentialism (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, and senior standing

This course is an in-depth study of French Existentialism and its influence on the development of French contemporary literature. It will further analyze the writer's personal view of modern man and his resolution to the problem of man's "absurd" condition. (*General Studies course - Level III, Senior Experience*)

FRE 452-3 Modern French Theater (3 + 0)

Prerequisite: Three years of college French or equivalent, or permission of instructor

This is a sampling of the French dramatists who have contributed not only to literary development but who also have had an impact on society and culture. Theater analysis techniques will be stressed.

FRE 453-3 The French Novel (3 + 0)

Prerequisite: Three years of college French or equivalent, or permission of instructor

This is a sampling of nineteenth and twentieth century French novels which will be studied in depth using several literary analysis techniques.

FRE 475-3 Senior Seminar in French Studies (3 + 0)

Prerequisites: Senior level status and at least two courses at the FRE 300 level.

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 100-3 World Regional Geography (3 + 0)

Prerequisites: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course presents the study of the formation, behavior, and interaction of social, political, cultural, and economic regions throughout the world. (*General Studies Course - Level II, Social Sciences*)

GEG 110-3 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. Emphasis is on 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). Field trip required. (*General Studies Course, Level II - Natural Sciences*)

GEG 112-1 Orienteering (0 + 2)

Students will become familiar with the reading and interpretation of topographic maps and the use of the compass. Orienteering exercises will be conducted in the field.

GEG 120-3 Introduction to Environmental Science (3 + 0)

Prerequisites: Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

An introduction to the study of the physical environment and some of the major related issues and problems. Areas of concern include the nature of the environment, climatic factors, resources, agriculture, solid and hazardous waste site location, pollution, global environmental hazards and energy production. These are studied in relationship to population, land use, environmental ethics, decision making and environmental management. (*General Studies Course, Level II - Natural Sciences*)

GEG 122-2 Map Use (1 + 2)

An introductory course providing basic information on the use and interpretation of maps, map projections, map scale, and map symbols.

GEG 123-3 Weather and Climate (2 + 2)

An introductory course which includes that portion of physical geography dealing with weather and climate. Both world and local patterns will be analyzed, as well as short and long range aspects of weather dynamics.

GEG 124-3 Landforms (2 + 2)

The study of the physical features of the earth's surface and the shape or form of the landscape. The course includes the materials that make up the land, the structure of the earth, the forces or agents that have acted to produce them, and the processes involved.

GEG 130-3 Introduction to Human Geography (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This course presents 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, and land use practices. (*General Studies Course, Level II - Social Sciences*)

GEG 140-3 World Resources (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

A survey of the physical resources of the world including water, soil, vegetation, energy and minerals, the course includes an analysis of geographic occurrence, extraction, appraisal, utilization, historic changes, and environmental issues. (*General Studies Course, Level II - Natural Sciences*)

GEG 150-1-3 Current Topics in Geography (Variable Topics) (1-3 + 0)

Prerequisite: Permission of instructor

The study of an important topic in geography, usually involving a contemporary issue. Course content will vary and the course may be repeated for credit as the course topic changes.

GEG 180-3 Travel Geography (3 + 0)

A specialized course emphasizing cultural, artistic, climatic, and geographical features of domestic and international regions. The influence of geographical characteristics of a region on travel and tourism is stressed. (No credit will be given for this course in the science area for general studies requirements)

GEG 202-3 Geography of Colorado (3 + 0)

Prerequisites: Satisfaction of the Level I mathematics course requirement and either ENG 101 or the Level I communications course requirement

This course presents the study of the physical, economic, and cultural features of Colorado. Major factors include climate, landforms, water, resources, energy and minerals, soil, vegetation, population characteristics, the economy, trends, national and international relationships, regional differences, current issues, and problems. (*General Studies Course, Level II - Social Sciences*)

GEG 204-3 Geography of Denver (3 + 0)

Prerequisite: An introductory course in geography or equivalent

A survey of geographic factors relating to the development of Denver and the urban corridor. Studies present distributions, densities, and location of selected phenomena including people, industries, and other activities.

GEG 210-2 Geography of Latin America (2 + 0)

Prerequisite: A course in geography, or permission of the instructor

A physical, political, and economic geography of the countries of Latin America. Emphasis will be placed on contemporary land use patterns and use of natural resources.

GEG 220-3 Geography of the United States (3 + 0)

Prerequisites: 6 hours of earth science courses

A survey of the geography of the U.S. The course includes an overview of the physical characteristics, landforms, climate, soil, vegetation, and natural resources. A study is made of the regions of the U.S. including such factors as population, agriculture, industry, transportation, and cultural factors. Geographic problems and issues will be raised.

GEG 225-3 Introduction to Geographic Information Systems (3 + 0)

Prerequisites: GEG 122 and MTH 121

This course is an introduction to the theory and practice of creating and using computer-based geographic information systems. It introduces and provides direct experience with the techniques used to develop, manipulate, and display spatial data using computers. The cartographic

aspects of environmental decision-making in the emerging age of widespread computer usage will be stressed.

GEG 230-3 Geographic Analysis of Social Issues (3 + 0)

Prerequisite: GEG 130

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 will also be discussed.

GEG 300-3 Historical Geography of the U.S. (3 + 0)

Prerequisites: Six hours of geography or permission of instructor. GEG 130, GEG 220, or HIS 121 recommended

This course examines the unique interrelationships between geography and history. Topics include frontiers and boundaries, settlement patterns, environmental perception, sequent occupancy, changing land use practices, migration, and urban growth. Further the course discussion will address the interrelationships between different physical environments and cultural landscapes.

GEG 321-4 Introduction to Cartography (2 + 4)

Instruction in the use and interpretation of maps as well as the tools and constructional techniques. Students will execute a variety of maps at different map scales and projection and critique their effectiveness.

GEG 322-3 Intermediate Cartography (1 + 4)

Prerequisite: GEG 321

Emphasis will be placed on 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.

GEG 325-3 Computer Cartography (3 + 0)

Prerequisites: GEG 321

Emphasis in this course is placed on the development and manipulation of geocoded data sets. Spatial statistics are analyzed via computer generated maps and graphics. A variety of mapping software packages will be used.

GEG 336-3 Geography of Economic Activity (3 + 0)

Prerequisite: GEG 100 or GEG 130 plus six additional hours of geography and MTH 121

The major purpose of this course is to investigate the "economic landscape." Global patterns of spatial interdependence are analyzed 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 340-3 Water Resources (3 + 0)

Prerequisites: GEG 120 or GEG 140 and one of the following: GEG 110, GEG 123, or GEL 101.

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 will be examined in terms of dams, watersheds, water laws, pollution, and flood control.

GEG 360-3 Urban Geography (3 + 0)

Prerequisite: GEG 130 or permission of instructor

Course designed to increase student awareness of distributional patterns associated with urbanization. Major emphasis will be on concepts concerning the location of activities within urban areas.

GEG 361-3 Principles of Land Use (3 + 0)

Prerequisites: GEG 100 or GEG 130 plus 6 hours of Geography

This course will focus on the analysis of land use and the principles underlying urban and regional development and planning. Multiple tools of land use analysis will be examined and applied through case studies, a project and a simulation.

GEG 362-3 Population, Resources, and Land Use (3 + 0)

Prerequisites: GEG 100, or GEG 130 plus six hours in geography, GEG 140 recommended

This course will examine 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 will be analyzed. Data analysis and projections will be covered.

GEG 363-3 Transportation Planning and Land Use (3 + 0)

Prerequisites: GEG 361 plus 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 392-2-6 Directed Study in Land Use (0 + 4-12)

Prerequisites: 15 hours in earth science courses and approval of instructor

An opportunity for upper-division students with good background in earth science to pursue study in a specific topic of interest and value. Requires approval of supervising instructor, and department chair, and frequent meetings between student and instructor.

GEG 461-3 Urban and Regional Planning (3 + 0)

Prerequisites: GEG 360 and 361, or equivalent

A study of the philosophy and scope of urban and regional planning and the principles and factors of planning and their interrelationships.

GEG 462-3 Land Use: Residential (3 + 0)

Prerequisites: GEG 360 or permission of instructor

Focus is on the spatial patterns and theories explaining the residential mosaic of North American cities. Analyzes housing types, densities, patterns and geographic distribution, and the interrelationships with other aspects of the urban environment.

GEG 464-3 Land Use: Recreation (3 + 0)

Prerequisites: GEG 361, six additional hours, or permission of instructor

Consideration of various types of recreation space, such as parks, greenbelts, and wilderness areas. Studies recreation land as part of the total land use planning process.

GEG 471-3 Legal Aspects of Land Use (3 + 0)

Prerequisite: GEG 361 or permission of instructor

Consideration of laws, ordinances and regulations relating to land use; the role of federal, state and local government in regulating and controlling land use. Makes use of case studies and local issues.

GEG 484-3 Remote Sensing (3 + 0)

Prerequisite: GEG 122 plus either GEG 110, GEG 124, or GEL 101, plus 6 hours of upper division level geography or geology courses

This course is an analysis of the earth's surface using high altitude imagery. The interpretation and application of data will be examined via aerial photos, satellite imagery, and multispectral sensing, including infrared and radar. The application of remote sensing techniques to the field of land use planning will be stressed.

GEG 485-3 Advanced Geographic Information Systems (1 + 4)

Prerequisites: Nine hours of geography and GEG 322

The production and manipulation of two and three dimensional color polygon maps from geocoded databases.

GEG 495-2-15 Internship in Land Use (0 + 6-45)

Prerequisite: GEG 361 or permission of department chair

An internship experience as performed on the job with a land use related company or agency. Must be done under qualified supervision. Must provide an approved learning experience under the direction of an earth science faculty member.

GEG 496-3 Global Environmental Challenges (3 + 0)

Prerequisite: Satisfaction of all Level I and Level II General Studies Course requirements 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. This course will be offered in the spring for seniors and in the fall for teacher education students and teacher recertification. (General Studies Course, Level III - Senior Experience)

Course Descriptions

Geology

GEL 101-4 General Geology (3 + 2)

Prerequisites: Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

An introduction to the theories, concepts, and assumptions in geology, this course teaches internal processes; their products and their effects on the environment will be studied. (*General Studies Course - Level II, Natural Sciences*)

GEL 102-4 Geology of Colorado (3 + 2)

This course introduces the basic theories, concepts, and assumptions in geology using the state of Colorado as the focus area. Major geological provinces, mineral resources, common rock forming minerals and sedimentary, igneous and metamorphic rocks will be covered. One field trip will be required.

GEL 103-4 Historical Geology (3 + 2)

Prerequisite: GEL 101

The story of earth and life on it as seen in rocks and fossils; theories of origin of both. Changing scenes through time. Methods of study: evidence and interpretation. Reconstruction of past scenes from the record. Some applications to the search for energy and mineral resources.

GEL 115-3 Oceanography (3 + 0)

Prerequisites: 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. Emphasis will be placed on global distribution, use and control of ocean resources, and ocean pollution. (*General Studies Course - Level II, Natural Sciences*)

GEL 120-2 Gemology (1 + 2)

Describes the history, geography and areas of occurrence of gemstones, as well as the physical properties of gems. Testing methods and instruments are thoroughly studied.

GEL 150-1-3 Current Topics in Geology (Variable Topics) (1-3 + 0)

Prerequisite: Permission of Instructor

The study of an important topic in geology, usually involving a contemporary issue. Course content will vary and the course may be repeated for credit as the course topic changes.

GEL 201-4 Rocks and Minerals (3 + 2)

Prerequisite: GEL 101

An introduction to the origin, occurrence, and identification of the common minerals and rocks that make up the earth's crust. Field recognition of the rocks and minerals of Colorado will be emphasized.

GEL 202-4 The Stratigraphy and Structure of the Earth (3 + 2)

Prerequisite: GEL 101

An introduction to vertical and lateral relationships among strata, and the genetic significance of micro and macro structural features.

GEL 212-3 Geomorphology of the U.S. (3 + 0)

Prerequisites: GEG 110 or GEG 124 or GEL 101. GEG 123 or MTR 140 recommended

This course is designed to familiarize the student with the specific geomorphic regions of the U.S. A detailed examination of the plains, plateaus, mountainous areas, river systems, and coastal regions will be conducted, using topographic maps, stereo photos and slides (photos). Landforms will be studied in terms of form, structure and process.

GEL 312-4 Advanced Geomorphology (3 + 2)

Prerequisites: MTH 121 plus a minimum of 9 hours selected from GEL 101, GEL 212, GEG 110, GEG 124, or permission of the instructor

This course provides an examination of surficial features of the earth, as developed by different agents, and in distinctive terrains. All surficial processes are included. Extensive use of maps and aerial photographs will be made. Field trips will be required.

GEL 315-4 Hydrogeology (3 + 2)

Prerequisites: GEG 340 (may be taken concurrently) and GEL 101 or GEG 110; or permission of the instructor

This course is a practical approach to the study of groundwater flow, with emphasis given to its chemistry, mode of migration, pollution, and

relationships to the geologic environment. The course also includes methods of exploration, well-log analysis, and field sampling.

GEL 342-4 Soil Resources (3 + 2)

Prerequisites: GEL 201, and either GEG 124 or GEL 212

This course will examine the materials and processes which combine to produce various soil types. Soil types will be examined in relationship to climate, landforms, vegetation and geology. The distribution of soil types will be examined in relationship to land use patterns.

GEL 344-4 Energy and Mineral Resources (3 + 2)

Prerequisites: GEL 201, GEG 140, and either GEG 124 or GEL 212, or permission of instructor

This course provides an examination of minerals and other mineral resources which serve an industrial society. It includes a detailed examination of the origin, physical character and distribution of ores, raw (mineral) materials, construction materials, and oil, coal, and gas.

GEL 392-2-6 Directed Study in Geology (0 + 4-12)

Prerequisites: 15 hours in geology

An opportunity for upper-division students, with a strong background in geology, to pursue study in a specific topic of interest and value. Requires approval of instructor and department chair, and frequent meetings between student and instructor.

GEL 400-3 Environmental Geology (2 + 2)

Prerequisites: GEL 101, GEG 110, plus a minimum of 6 additional hours in geology or physical geography, or permission of instructor

This course examines natural and humanly accelerated geologic factors and their effects on the quality of the environment. Environmental hazards including earthquakes, floods, volcanos, and land slides as well as resource development and waste disposal are examined to determine cause-and-effect relationships.

GEL 401-3 Environmental Hazards and Planning (3 + 0)

Prerequisites: GEG 361 plus a minimum of 6 hours of geology, or physical geography or permission of instructor. GEL 400 strongly recommended

Environmental hazards will be examined in relation to land use, legislation, regulatory agencies, and health issues. Computer analyses of environmental hazards, environmental planning, environmental impact statements and environmental audits will be studied. Students will be involved with current case studies.

GEL 495-2-15 Internship in Geology (0 + 6-45)

Prerequisites: Major in Land Use - Geologic emphasis, junior or senior standing, 12 upper-division in geology, permission of Earth Science chair

An internship experience as performed on the job with a geology related company or agency. Must be done under qualified supervision. Must provide an approved learning experience under the direction of an Earth Sciences faculty member.

GEL 496-3 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. Also completion of all Level I and Level II General Studies Course requirements and senior standing

This course has been designed as a senior level, capstone course for land use majors. Students will design conduct and report on specific environmental field investigations in the Denver area with the assistance of faculty and environmental professionals. Topics include water resource issues, environmental hazards, alternate energy projects, soils mapping, and waste disposal. Wherever possible, students will be paired with an environmental professional. (*General Studies Course - Level III, Senior Experience*)

German

GER 101-5 Elementary German I (5 + 0)

This is an introductory course in German, including pronunciation, grammar, and reading, with emphasis on speaking and understanding.

GER 102-5 Elementary German II (5 + 0)

Prerequisite: GER 101, or one or two years of high school German

This course is the continuation of GER 101. (*General Studies Course - Level I, Communications*)

GER 111-3 Basic Conversational German (3 + 0)

This is a course designed to teach the essentials of the German language through a conversational approach.

GER 112-3 Basic Conversational German (3 + 0)

Prerequisite: GER 111 or equivalent or permission of instructor

This course is a continuation of GER 111.

GER 211-3 German Reading and Conversation (3 + 0)

Prerequisite: One year of college German or equivalent, or permission of instructor

This course shall prepare the student to read and to communicate with ease in German. Emphasis lies on vocabulary and idiomatic phrases used in everyday language.

GER 212-3 German Civilization (3 + 0)

Prerequisite: One year of college German or equivalent, or permission of instructor

This course places emphasis on the broadening of reading and conversational skills. The materials read and discussed will introduce 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 231-3 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 and introducing new, more advanced principles of grammar, and to increase her or his vocabulary.

GER 232-3 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 skill. It will expose him or her 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 301-3 Third Year German Conversation (3 + 0)

Prerequisite: GER 211 or 212, or 4 years of high school German

The course is aimed at strengthening 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 315-3 German Phonetics: Theory and Practice (3 + 0)

Prerequisite: Two years of college German or equivalent, or permission of instructor

This course is devoted to the improvement of pronunciation and speech habits based upon an understanding of the phonetics of German. After an introduction to the basic speech mechanism through principles of linguistics, the course will offer practice in pronunciation through the declamation of selected texts.

GER 320-3 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 the German lifestyle. Historical events of Germany as well as modern German lifestyles of West and East Germany, Austria, and Switzerland are discussed. The format is reading-discussion, entirely conducted in German. Students will be required to give oral presentations. (*General Studies Course - Level II, Arts and Letters*)

GER 321-3 Survey of German Literature I (3 + 0)

Prerequisite: Two years of college German or equivalent, or permission of instructor

This course shall give an insight of German historical and cultural development through selected readings in German literature, from its beginning to the eighteenth century.

GER 322-3 Survey of German Literature II (3 + 0)

Prerequisite: Two years of college German or equivalent, or permission of instructor

This course is a history of German literature of the eighteenth, nineteenth and early twentieth centuries, including selected readings of principal German authors, lectures on biography and criticism, and recitation. Conducted in German.

GER 323-3 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, the course will emphasize works of distinguished contemporary authors. Lectures on biography and criticism will be interspersed as convenient. A term paper will be assigned. Conducted in German.

GER 331-3 Advanced German Composition and Grammar (3 + 0)

Prerequisites: GER 231 and 232 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 340-3 German for Business (3 + 0)

Prerequisite: GER 231 or permission of instructor

This course is intended for students who plan to do business with people in German-speaking countries. 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.

GER 341-3 Translation Techniques for Scientific Materials (3 + 0)

Prerequisite: GER 232 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 351-3 Lessing, Goethe, and Schiller (3 + 0)

Prerequisite: Two years of college German or equivalent, or permission of instructor

After a brief survey of the history of the German drama, the works selected will be read and analyzed. Class periods will be devoted to lectures on historical background, biography and criticism, reading, translation of the works for appreciation or alertness, class discussion in German, and oral or written reports.

GER 402-3 Advanced German Composition (3 + 0)

Prerequisite: Three hours of third-year college German

This course is an advanced study in the application of vocabulary, idiomatic expressions and grammatical structures necessary for effective written communication. Includes: review and expansion of various grammatical topics, exercises on stylistics and considerable expansion of the student's vocabulary. Conducted in German.

GER 411-3 The German Novel of the Nineteenth and Early Twentieth Centuries (3 + 0)

Prerequisite: At least three hours of third-year college German, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course presents the development of the German novel and short novel, with emphasis on the principal writers of prose fiction of the nineteenth and early twentieth centuries. Reports and discussions of representative works, supplemented with lectures on biography and historical background will be required. Conducted in German. (*General Studies Course - Level III, Senior Experience*)

GER 412-3 German Drama of the Nineteenth and Twentieth Centuries (3 + 0)

Prerequisites: At least three hours of third year college German, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements and senior standing

This course is a continuation of GER 411. This course presents development of the German drama, with emphasis on the dramatists of the nineteenth and twentieth centuries. Principal works of Tieck, Kleist, Hebbel, Ludwig, Hauptmann, and Brecht, supplemented with lectures on biography and historical background will be included. Conducted in German. (*General Studies Course - Level III, Senior Experience*)

Course Descriptions

GER 421-3 Advanced Conversation: Present-day Germany (3 + 0)

Prerequisite: At least 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.

Health Care Management

HCM 301-3 Health Care Organization (3 + 0)

Prerequisite: Junior standing

Analysis of organizational structure, the nature of health and health care delivery. Emphasizes the interrelatedness of cultural, economic, political, and social aspects of health care delivery along with its services and management.

HCM 302-3 Management Principles in Health Care (3 + 0)

Prerequisite: Junior standing

A course designed to provide a general orientation to administrative practices in the field of health care management. Emphasis is placed on administrative concepts, processes, and theoretical content considered necessary for persons who intend to practice in a health care middle management position.

HCM 303-3 Health Care Jurisprudence (3 + 0)

Prerequisite: Junior standing

A basic study of the legal and ethical issues involved in the management and delivery of health care services. Emphasis is placed on law as it pertains to negligence, contracts, consents, confidentiality, labor relations, and current medical/ethical issues.

HCM 402-3 Personnel Management in Health Care (3 + 0)

Prerequisites: HCM 301 and HCM 302 or may be taken concurrently or permission of instructor

This course is specifically designed to analyze personnel management functions as they affect employee productivity and satisfaction in health care organizations. The course stresses the managerial functions, structures, and guiding principles which are universally significant in personnel management.

HCM 403-3 Financial Management in Health Care (3 + 0)

Prerequisites: ACC 201 and a departmentally approved computer course or permission of instructor

This course surveys the organizational and operational aspects of fiscal analysis and control of health care institutions. Emphasis is placed on the practical processes involved in the determination and analysis of revenues, costs, rates, working capital levels, budgets, and uses of the computer.

HCM 404-3 Health Care Economics (3 + 0)

Prerequisite: Junior standing

A study of the major economic issues in the health care industry. Emphasis is on the major elements of economic theory from a microeconomic perspective and the application of theory to the health service sector.

HCM 451-6 Health Care Management Practicum (1 + 15)

Prerequisites: Completion of all HCM courses, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A capstone course designed to provide the student the opportunity to integrate and operationalize all previously learned health management knowledge and skills. The student identifies a health management area for study. The management area of study and the practicum setting are mutually agreed upon by the student, the faculty member and the health facility preceptor. (General Studies Course - Level III, Senior Experience)

Health Services

HES 105-3 Dynamics of Health (3 + 0)

Prerequisites: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

This introductory course 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. (General Studies Course - Level II, Social Sciences)

HES 204-3 Introduction to Nutrition (3 + 0)

Prerequisites: Satisfaction of the Level I math course requirement and ENG 102 and high school chemistry or permission of instructor

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 Course - Level II, Natural Sciences)

HES 307-3 Parental Health Care Issues (3 + 0)

Prerequisite: PSY 325

A course designed to prepare the student to provide anticipatory guidance to parents. Emphasis is placed on health maintenance, illness/injury prevention, the management of health problems and available resources.

HES 360-3 Ethical Decision Making in Health Care (3 + 0)

Prerequisite: Major in health care related field

Course designed to assist nurses and others in health-care fields to become familiar with ethical decision making models, apply ethical decision making models to dilemmas in own clinical practice, and adopt an appropriate ethical decision making model in own clinical practice.

HES 380-4 Clinical Pathophysiology (4 + 0)

Prerequisite: BIO 232 or equivalent

A course designed to familiarize the student with the nature of pathophysiology as it evolves from the incipient stage to full development. Pertinent biochemical and metabolic derangement are correlated with the cellular structure of the body using a systems approach.

HES 382-3 Health Care Counseling (3 + 0)

Prerequisite: Registered Nurse status or permission of instructor

This course is designed to prepare students to operationalize concepts and theories of health care counseling. The course is for teachers, nurses, health educators and allied health professionals whose primary goal or role is not counseling, although counseling may be an important part of their responsibilities.

HES 452-3 Internship in Gerontology (3 + 0)

Prerequisites: All required courses in the gerontological services minor must be completed prior to taking the internship. Permission of the director, Institute of Gerontology, required on course substitutions and on agency placements

This course is designed for non-health care management students minor in gerontological services. The internship site must be approved by the director of the Institute of Gerontology and should be taken after all required courses in the minor have been completed. The course provides an opportunity for students to apply course work to a professional setting serving older persons. Exceptions to policy must be approved by the director of the Institute.

History

HIS 100-3 American Civilization (3 + 0)

Prerequisite: Minimum performance standard scores on the 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 Course - Level II, Historical)

HIS 101-3 Western Civilization to 1715 (3 + 0)

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course surveys the development of the culture and institutions of Western civilization: the earliest civilizations of the Middle East, the transitions of the classical Mediterranean world, and the syntheses of Western Europe in the medieval and early modern periods. (General Studies Course - Level II, Historical)

HIS 102-3 Western Civilization since 1715 (3 + 0)

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course treats the history and culture of Western civilization from 1715 to the present: the old regime and revolutions, nineteenth century nationalism and liberalism, and the crises of wars and values in the twentieth century. (General Studies Course - Level II, Historical)

HIS 110-3 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 which made the West a distinct region.

HIS 111-3 Colorado History I (3 + 0)

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course covers the development of Colorado with primary emphasis on the nineteenth century. It treats Native American influence; Spanish, French, and United States exploration; mining and trapping; early settlements and pioneer life. (*General Studies Course - Level II, Historical*)

HIS 121-3 American History to 1865 (3 + 0)

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course surveys the European background of American history, the colonial period, the Revolution, the development of the United States from Washington through Jackson, the sectional differences of the 1840s and 1850s, and the Civil War. (*General Studies Course - Level II, Historical*)

HIS 122-3 American History since 1865 (3 + 0)

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course covers the immediate background to present day America beginning with the Civil War and culminating with World War II. Such topics as industrialism, emergence of the U.S. as a world power, Progressivism, the First World War, the Roaring Twenties, and the Great Depression will be treated. (*General Studies Course - Level II, Historical*)

HIS 140-3 History of Popular Culture (3 + 0)

This is an introductory course into the history of American Popular Culture. Students will learn about the relationship of popular culture (music, movies, television, fast food operation, literature) and society in the twentieth century.

HIS 150-1-3 Popular Culture (1-3 + 0)

A study of the content, trends, genres, tastes, technical developments, and perspectives of popular culture studies. Topics will vary to accommodate student needs and interests. May be repeated for credit as the course title changes.

HIS 151-3 Movies and History (3 + 0)

Studies the relationship between broad social values and American movies.

HIS 152-3 Rock Music and Social History (3 + 0)

Examines the trends in American social history since 1953 by using rock music lyrics and events as evidence.

HIS 153-3 Sports in America (3 + 0)

Sports in America traces the history of modern sports from the nineteenth century to the present. This course explores how American institutions and traditions have shaped sports and how American expectations of sports have evolved over two hundred years.

HIS 165-3**(WMS 165-3) Women in U.S. History (3 + 0)**

Prerequisites: Minimum performance standard scores on reading and writing preassessment placement tests

This course 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 early national period, 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 only be granted for one of these courses. (*General Studies Course - Level II, Historical*)

HIS 191-3**(CHS 101) History of Meso-America: Pre-Columbian and Colonial Periods (3 + 0)**

Prerequisites: CHS 100 and minimum performance standard scores on the reading and writing preassessment placement tests

This course provides an opportunity to study the indigenous cultures of Meso-America during the pre-Columbian period and focus on social, artistic, scientific, and engineering artifacts before and after the conquest of Mexico and the Southwestern U.S. by Spain. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Historical*)

HIS 192-3**(CHS 102) History of the Chicano in the Southwest: Mexico and U.S. Periods (3 + 0)**

Prerequisite: CHS 101 or permission of instructor

This course begins with the Mexican War of Independence (1810) and concludes with an in-depth study of the historical development of the contemporary Chicano world. Credit will be granted for only one of these courses.

HIS 194-3**(AAS 113) Survey of African History (3 + 0)**

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course surveys the major developments on the African continent from ancient times to the modern period. The course focuses on political and cultural developments in African civilizations from ancient Egypt to the contemporary period. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Historical; Multicultural*)

HIS 201-3 Contemporary World History (3 + 0)

Prerequisite: Satisfaction of ENG 101 and Level I communication course requirement

This course explores the major developments in the twentieth century emphasizing political, social, and economic experiences. The issues facing the Third World are examined closely. (*General Studies Course - Level II, Historical*)

HIS 295-3**(AAS 213) West African Civilizations (3 + 0)**

Prerequisites: Satisfaction of ENG 101 and Level I Communication course requirements

This course surveys history and cultures of West Africa from 1000 A.D. to the modern period. The course will focus on political, cultural and economic developments among West African peoples and states. (*General Studies Course - Level II, Historical; Multicultural*)

HIS 301-3 History of Denver (3 + 0)

Emphasizes the growth and development of Denver. Field trips are utilized to clarify the city's history. Students are acquainted with agencies interested in preserving the city's history.

HIS 303-3 Ancient Orient and Greece (3 + 0)

Prerequisite: Satisfaction of Level I General Studies course requirements

An upper division survey course which is designed to familiarize the student with the histories and cultures of the Near East and Greece of antiquity, the contributions which those societies made to civilization, and their overall significance. (*General Studies Course - Level II, Historical*)

HIS 306-3 Rome and the Caesars (3 + 0)

Prerequisites: HIS 101 or permission of instructor and satisfaction of all Level I General Studies course requirements

An upper-division survey course which concentrates on the history of Rome from its founding in the eighth century B.C. to its demise in the fifth century A.D. Roman history presents a unique study in the rise and decline of a great civilization and this course is designed to analyze every aspect of that development. (*General Studies Course - Level II, Historical*)

HIS 307-3 Ethnicity in History (3 + 0)

Although concerned with the general problems involved in the study of ethnicity, this course will concentrate on a wide variety of ethnic groups; the topics will change, depending on student needs and interests. May be repeated for credit as the course title changes.

HIS 310-3 American West Seminar (3 + 0)

In this seminar students consider various topics relating to the American frontier. Primary emphasis will be on the nineteenth and twentieth century Trans-Mississippi West.

HIS 311-3 Colorado History II (3 + 0)

Course concentrates on twentieth 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 312-3 Medieval History (3 + 0)

Prerequisite: Satisfaction of Level I General Studies course requirements

Course covers the history and culture of Europe from 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 Course - Level II, Historical*)

Course Descriptions

HIS 314-3 Renaissance and Reformation (3 + 0)

Prerequisite: Satisfaction of Level I General Studies course requirements

After studying its political, religious, cultural, and economic roots in the fourteenth and fifteenth centuries, the religious upheaval of the sixteenth century is examined in detail. Also considered is the immediate and long-range effect of the Reformation upon Western civilization. (*General Studies Course - Level II, Historical*)

HIS 321-3 French Revolution and Napoleon: 1715-1815 (3 + 0)

After studying its political, cultural, social, and economic roots in the eighteenth century, the French Revolution is examined in detail. Also considered are the effects of the Revolution and Napoleon upon France and the major countries of Europe.

HIS 323-3 Nineteenth Century Europe (3 + 0)

Covers Europe either as a whole or in interrelated modules, culminating in the tragic climax of World War I: nationalism, primarily political history; industrialism, social, economic, and intellectual history; imperialism, diplomatic history.

HIS 326-3 Twentieth Century Europe, 1914-1939 (3 + 0)

Internal developments in the major European nations are analyzed from World War I to 1939. Primary emphasis is placed on the impact of the First World War, Versailles, the Russian Revolution, the rise of fascism, and international relations.

HIS 327-3 Issues in European History (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 328-3 Modern Germany since 1789 (3 + 0)

The history and culture of Germany are studied against the background of the transformation from the underdeveloped and politically fragmented Holy Roman Empire in 1789 to the industrial giant and world power of the twentieth century.

HIS 329-3 Nazi Germany (3 + 0)

Prerequisite: HIS 102 or permission of instructor

Examines the Hitler regime in theory and practice, in peace and war, as a case study of a police state dictatorship in one of the most highly civilized and industrialized nations of the twentieth century.

HIS 331-3 England to 1714 (3 + 0)

Prerequisites: HIS 101 or permission of instructor and satisfaction of Level I General Studies Course requirements

Studies the institutional and cultural development of the English nation from the earliest times to the death of Queen Anne. (*General Studies Course - Level II, Historical*)

HIS 332-3 England since 1714 (3 + 0)

Prerequisites: HIS 102 or permission of instructor and satisfaction of Level I General Studies course requirements

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 Course - Level II, Historical*)

HIS 334-3 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 which were uniquely Irish and those which were a part of the overall evolution of European civilization.

HIS 335-3 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. May be repeated for credit as the course title changes.

HIS 338-3 Nixon and the Kennedys (3 + 0)

This course employs a life-and-times approach to study Richard Nixon, the members of the Kennedy family (with emphasis on John and Robert) and the historical events which either 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, childhood and public careers are all considered in the biographical aspects of this course.

HIS 340-1-3 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 341-3 American Colonial History (3 + 0)

This course focuses upon topics and themes in colonial American history which have contributed most to American culture.

HIS 343-3 American Revolution, 1763-1787 (3 + 0)

Analyzes the structure of American society on the eve of the Revolution, the evolution of British imperial policy and the causes of the Revolution. Military and diplomatic aspects of the era are stressed as well as the forces that were making for a more perfect union.

HIS 346-3 The Constitution and the New Nation, 1787-1848 (3 + 0)

Examines the constitutional and democratic thought from the Articles of Confederation to the Civil War. The Constitutional Convention, the ideas of Jeffersonians and Federalists, and the Supreme Court under Marshall and Taney will be emphasized.

HIS 351-3 Civil War: Background (3 + 0)

This course is primarily concerned with the forces which produced the American Civil War. As a foundation for understanding those forces it emphasizes the topics of slavery and the Old South.

HIS 352-3 Civil War: War and Peace (3 + 0)

Covers the military and nonmilitary history of the Civil War years and examines the period of Reconstruction that followed the end of the war. It also seeks to familiarize students with Civil War and Reconstruction historiography.

HIS 354-3 Shaping of Modern U.S., 1877-1920 (3 + 0)

Traces the rise of industrialism; the organization of laborers and farmers; the growth of American imperialism; the spirit of reform in America and resulting social, political, and constitutional adjustments.

HIS 356-3 Urban History (3 + 0)

A comprehensive survey of urbanization since ancient times. Emphasis will be placed on the historical, social, and economic factors which have shaped urban life. Particular attention will be given to the emergence of the industrial city both in Europe and the United States.

HIS 357-3 (AAS 357) African American History I (3 + 0)

Prerequisites: HIS 121, HIS 122, 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 United States to 1876. Credit will be granted for only one of these courses.

HIS 358-3 (AAS 358) African American History II (3 + 0)

Prerequisites: HIS 121, HIS 122, or permission of instructor

Continues a study of the role of the people of African heritage in the United States from 1876 to the present. Emphasis is placed on understanding the historical tradition which gives rise to current dilemmas facing America. Credit will be granted for only one of these courses.

HIS 360-3-4 State and Local History (3 + 0 or 2)

A research/skill course designed to acquaint students with regional history. Emphasis will be placed on student initiated projects, on oral history techniques, and on research development.

HIS 361-3 Preservation/Public History (3 + 0)

This course traces the development of historic preservation in the U.S. and examines the role of the public historian in managing cultural resources.

HIS 362-3 History of the Legal and Medical Professions (3 + 0)

This course will explore the historical, social, cultural, and organizational characteristics of the legal and medical professions.

HIS 364-3 U.S. The Twenties - The Thirties (3 + 0)

Covers the intellectual climate of the twenties, domestic and foreign policies from Harding through Hoover, the Great Depression, the New Deal,

and U.S. diplomacy on the eve of World War II. This course can be offered as two modules, (1) on the twenties and (2) on the thirties.

HIS 366-3 Recent U.S., 1945-1970's (3 + 0)

Prerequisites: Satisfaction of all Level I General Studies course requirements

This course covers America's role in the postwar world and the interaction between domestic and foreign policy with attention to such topics as The Cold War, Crises in Latin America, the Kennedy Years, and Watergate. (General Studies Course - Level II, Social Sciences)

HIS 367-3 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. May be repeated for credit as the course title changes.

HIS 368-3 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 369-3 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 371-3 Chinese History to 1800 (3 + 0)

Covers the history of China from its prehistoric beginnings to the arrival of the West in 1800, emphasizing the development of Chinese culture, economy, society, philosophy, and politics.

HIS 373-3 The Modern Far East (3 + 0)

Covers the social, political, economic, and cultural history of the Far East from the first contacts with the modern West (1800) to the present.

HIS 376-3 Modern Middle East (3 + 0)

Course explores the dynamic history of this volatile region with special emphasis on the post-World War II period.

HIS 380-3 Latin America: Empires (3 + 0)

This course will trace and analyze the political, social, and economic development of the Spanish and Portuguese empires in America from the initial period of exploration and conquest through the institutionalization of the imperial systems.

HIS 381-3 Latin America : Republics (3 + 0)

Prerequisites: 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 nineteenth century and the revolutionary experiences of the twentieth century. (General Studies Course - Level II, Historical)

HIS 383-3

(CHS 301) The Mexican Revolution (3 + 0)

Prerequisite: CHS 100 or permission of instructor

This course will trace historical events, personalities, and values that were and are affected by the Mexican Revolution (1910-1940). It includes a social-political analysis of the Revolution's events as well as its impact on the United States. Credit will be granted for only one of these courses.

HIS 384-3 Topics in Popular Culture (3 + 0)

This course will examine major trends in popular culture. Topics will include American lifestyles, beliefs, and customs. May be repeated for credit as the course title changes.

HIS 385-3 American Social History (3 + 0)

This course focuses on significant events, issues, and themes in history that have influenced the development of American society.

HIS 387-3 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 attempts to allow each student to place his or her attitudes within this historical framework.

HIS 389-1-2 Readings in History (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. The credit is dependent upon the amount read and the quality of the critiques. May be repeated for credit as the title changes.

HIS 398-3 Cooperative Education: History (3 + 0)

Prerequisite: Placement in history internship with Cooperative Education Program

This course is designed to provide actual work experience in various areas of public history. Students research and/or develop special projects for federal and state agencies, preservation organizations, archives, and museums while serving as interns.

HIS 400-1 Research Techniques (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 401-3 Methods of Teaching Social Science: Secondary School (3 + 0)

Prerequisite: Junior or senior standing. Ideally should be taken semester before student teaching is done

Examines the relationship between the social sciences, explores new curricular approaches, and discusses philosophies of teaching social science.

HIS 428-3 Russia to 1905 (3 + 0)

Considers the controversial interpretations of the formation of the Russian state, the emergence of modern Russia, nineteenth century autocracy, the rise of the intelligentsia, and the 1905 Revolution.

HIS 432-3 Russia since 1905 (3 + 0)

Explores major developments in the domestic and foreign policies of twentieth century Russia. Emphasis is placed on revolutions, on the social, political and intellectual changes which have come to Soviet Russia, and on the role of such personalities as Lenin, Stalin, Khrushchev, and Brezhnev.

HIS 465-3 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, on the diplomacy among the wartime allies, and on the collapse of wartime cooperation and the advent of the Cold War, as well as containment.

HIS 482-3 Senior Seminar (3 + 0)

Prerequisites: HIS 101, 102, 121, 122, and at least 9 upper division history hours, and satisfaction of all Level I and Level II General Studies Course requirements and 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. (General Studies Course - Level III, Senior Experience)

HIS 484-3 Seminar in American Culture (3 + 0)

This seminar will deal with various topics relating to American society and culture. Primary emphasis will be on popular and folk culture.

Of the above courses, the following may be repeated if the topics are changed: HIS 150, HIS 307, HIS 327, HIS 335, HIS 340, HIS 367, HIS 384, HIS 389, HIS 398, and HIS 400.

Honors

HON 275-3 The Legacy of Arts and Letters I (3 + 0)

Prerequisites: ENG 101, the Level I Communication course requirement, and permission of the MSCD Honors Program Director

This seminar within the humanities is designed to study those works which have had a literary, philosophical and artistic impact on the image of the self with strong emphasis on works prior to the nineteenth century. Field trips constitute an integral part of this course. (General Studies Course - Level II, Arts and Letters)

HON 276-3 The Legacy of Arts and Letters II (3 + 0)

Prerequisites: HON 275, ENG 101, the Level I Communication course requirement, and permission of the MSCD Honors Program Director

This seminar within the humanities is designed to study those works which have had a literary, philosophical and artistic impact on the image of the self. A continuation of The Legacy of Arts and Letters I, this course emphasizes modern works. Field trips constitute an integral part of this course. (General Studies Course - Level II, Arts and Letters)

HON 280-3 History of Science (3 + 0)

Prerequisites: MTH 111, and either ENG 101 or satisfaction of the Level I Communication course requirement. Admission to MSCD Honors program or permission of the MSCD Honors Program Director

This course is a comprehensive historical account of the rise of science and scientific thought from the Babylonians to the present time. Emphasis is placed

Course Descriptions

on great scientists and how they achieved their historical contributions which helped to change the world. Topics included are astronomy, chemistry, physics, math, and biology. (*General Studies Course - Level II, Natural Sciences*)

HON 281-3 Development of Experimental Science (3 + 0)

Prerequisites: MTH 111 and either ENG 101 or satisfaction of the Level I Communication course requirement. Admission to MSCD Honors Program or permission of the MSCD Honors Program Director

This course is an in-depth study of great scientific achievements with an emphasis on historical experiments and their significance to the evolution of science. Experiments will be performed by the students and collected data from these experiments will be used to "rediscover" scientific laws. (*General Studies Course - Level II, Natural Sciences*)

HON 295-3 The Art of Critical Thinking (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests and permission of the MSCD 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 will be focused on constructing arguments and evaluating them. The impact of inquiry on effective communication will be discussed. (*General Studies Course - Level I, Communications*)

HON 380-3 Revolutions and Social Change I (3 + 0)

Prerequisites: One of the following courses: HIS 102, SOC 101, ECO 201, PSC 102, or PSY 241; satisfaction of all Level I General Studies course requirements; and permission of the MSCD Honors Program Director

The object of this seminar is to help students better understand and explain 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 will include sociological, economic, political, and historical dimensions. (*General Studies Course - Level II, Social Sciences*)

HON 381-3 Revolutions and Social Change II (3 + 0)

Prerequisites: HON 380 and one of the following courses: HIS 102, SOC 101, ECO 201, PSC 102, or PSY 241; satisfaction of all Level I General Studies course requirements; and permission of the MSCD Honors Program Director

This seminar is a continuation of HON 380. It explores the socioeconomic and political consequences of major revolutions studied in HON 380 and attempts to explain their impact on contemporary world affairs. (*General Studies Course - Level II, Social Sciences*)

HON 385-3 American Culture I (3 + 0)

Prerequisites: HIS 121 and 122 or their equivalent and permission of the MSCD Honors Program Director

An upper division course designed to acquaint the student with a variety of interdisciplinary perspectives on American culture.

HON 386-3 American Culture II (3 + 0)

Prerequisites: HIS 121 or 122 or their equivalent, HON 385, and permission of the MSCD Honors Program Director

This course applies the theoretical perspectives from American Culture I to contemporary works best representing American life.

HON 492-3 Senior Honors Seminar (3 + 0)

Prerequisites: Senior level status and permission of the MSCD Honors Program Director

An intense, interdisciplinary, thematic seminar. The course content will vary according to the description of the department(s) which offer(s) the seminar. HON 492 is an option to HON 495.

HON 495-3 Senior Honors Thesis (3 + 0)

Prerequisites: Senior level status and permission of the MSCD Honors Council

This course constitutes a senior experience, presented as an independent study, in which the student will write an Honors thesis supervised by an MSCD faculty member representing the discipline of the topic. HON 495 is an option to HON 492.

Hospitality, Meeting, Travel Administration

HMT 102-3 Principles of Hotel/Restaurant Administration (3 + 0)

An introductory course in hotel and restaurant operations. Provides the beginner with concepts of hotel/restaurant organization, profit and loss statements, management controls and marketing concepts.

HMT 103-3 Principles of Meeting/Travel Administration (3 + 0)

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 beginner is provided an understanding of the operational concepts, vocabulary, career opportunities and interrelationships between travel and meeting professions.

HMT 109-2 Job Search Strategies (1 + 2)

Discusses how to get a job and how to keep it. Preparing resumes, obtaining interviews, marketing oneself during the interview, and employment contracts are covered in detail. Emphasis is placed on image development and promotion.

HMT 161-4 Kitchen Procedures and Production I (3 + 2)

An introductory course in quantity and commercial food production and sanitation procedures. Course includes certification in sanitation and health practices, safety, use and care of equipment and tools, basic cooking principles, and recipe and menu development.

HMT 162-4 Kitchen Procedures and Production II (3 + 2)

Prerequisite: HMT 161

A continuation of HMT 161. Course covers basic nutrition, stocks and sauces, soups, preparation and cooking of meats, poultry, fish, shellfish, vegetables, potatoes and starches, and preparation of pantry breakfast, dairy and garnish items. Bakery, yeast, and pastry item preparation and baking are included.

HMT 181-4 Basic Ticketing and Reservations Procedures (4 + 0)

This course is designed to give the student a basic working knowledge of domestic ticketing, reservation systems and ticket processing through an agency until commissions are received. Students learn manual processes and computer formats.

HMT 182-2 Travel References and Case Studies (2 + 0)

Prerequisite: HMT 181 must be taken at the same time or must have been taken prior to taking this course

This course focuses upon international travel. Students learn international ticketing, itinerary development and ticketing processing. Students use both manual and computer techniques.

HMT 183-4 Cruise Development, Marketing, and Sales (4 + 0)

This course focuses on the cruise product, cruise development, marketing cruises, and cruise point-of-sale techniques. Students learn cruise conferences, markets, cruise sales tools, cruise reservations and ticketing processes, and group cruise sales techniques. Students learn cruise sales through list selection, individual and group telemarketing and individual and group sales activities. A guided individual research project will also be required.

HMT 200-3 Externship I (0 + 9)

Prerequisite: Formal written approval of the HMTA program externship supervisor

A beginning on-the-job learning experience in the area of emphasis of the HMTA student. A cooperating agency or industry develops a practical as well as academic program of learning and work which, when approved by the HMTA externship 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. An in-depth paper is required. Maximum credit: 6 semester hours.

HMT 250-2 Applied Hotel/Restaurant Operations (2 + 0)

Prerequisite: The student must be anticipating or be currently employed in the industry, or be a student in the HMTA program, or have the instructor's permission

The student learns how classroom theory is actually applied in hotels and restaurants. Guest-lecturers from the hotel and restaurant industries take students through operations. Classes meet in hotels and restaurants.

HMT 256-3 Hotel Financial Accounting (3 + 0)*Prerequisites:* ACC 201 and HMT 102

A continuation of basic accounting techniques learned in ACC 201; concentrating on specific hotel industry accounting procedures for front office, sales and payroll. Balance sheets and income statements will also be covered.

HMT 265-3 Restaurant Financial Accounting (3 + 0)*Prerequisite:* ACC 201

A continuation of basic accounting techniques learned in ACC 201; concentrating on specific restaurant industry accounting procedures for kitchen. Catering and payroll will also be discussed.

HMT 276-3 Meeting Administration I (3 + 1)*Prerequisite:* Permission of the instructor and basic computer literacy

The first course in meeting planning for majors or for those who believe they may be called on to plan a meeting for their employer or organization. Considers the basics of budgeting, site selection, exhibits, transportation, food and beverage, functions, publicity and audiovisuals for meetings.

HMT 284-4 Tour Operations (4 + 0)

An introduction to tour operations, this course provides both knowledge and skill in tour development. Saturday and weekend tours are planned by students through group work. Each student develops his/her own tour as well as planning tour organization, tour marketing, tour management and tour evaluation through a series of up to seventeen tour planning group projects.

HMT 285-3 Travel Agency Accounting (2 + 2)*Prerequisite:* HMT 181

This course is taught on a working office concept with hands-on recording of all types of accounting transactions encountered in a travel agency. Students will set up their own set of books for a travel agency as they learn and apply accounting principles.

HMT 286-2 Tourism (2 + 0)

This course introduces students to tourism theories including the Tourism Multiplier and the tourism account in the Balance of Payments. State and National tourist offices and their approaches toward developing tourism are also discussed.

HMT 351-3 Hotel Administration I (3 + 0)*Prerequisite:* HMT 102 or permission of instructor

To develop an awareness of all facets of hotel sales as it relates to lodging operations. General hotel organization with in-depth study of individual departments as they relate to administration will be covered.

HMT 352-3 Hotel Administration II (3 + 0)*Prerequisite:* HMT 351

A continuation of Hotel Administration I (HMT 351). Emphasis on interrelation of hotel departments for maximum guest service and profitability of lodging property. Course brings together all facets of administration, sales and marketing through effective administrative organization.

HMT 356-3 Hotel/Restaurant Law (3 + 0)*Prerequisite:* HMT 367, or HMT 352, or permission of instructor

Overview of contemporary hotel and restaurant law as it pertains to the civil rights and legal obligation of hotels and restaurants to guests. Includes responsibilities, liabilities and rights of hotelkeepers and restaurateurs, with study of pertinent and precedent legal cases.

HMT 357-3 Hospitality Marketing (3 + 0)*Prerequisite:* Junior standing or permission of instructor

Application of principles of marketing and advertising to specific needs of the hospitality industry. Students will submit major paper based on field work in their area of emphasis analyzing a particular marketing problem.

HMT 360-3 Beverage Control (3 + 0)*Prerequisite:* HMT 102 or permission of instructor

A basic course giving students the ability to function as the operator/management of the beverage area of the hospitality industry business. Procurement preparation, and service to final accountability of sales and commodities are covered.

HMT 361-3 Enology: The Study of Wine (3 + 0)*Prerequisite:* Students must be 21 years old

This course is designed for the student who wishes to learn the basics of wines for personal gratification as well as to serve as a beginning course

for 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 365-3 Hospitality Property Management (2 + 2)*Prerequisite:* HMT 102, HMT 351, or HMT 366

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 366-3 Restaurant Administration I (3 + 0)*Prerequisite:* HMT 102 or permission of instructor

To develop an awareness of all facets of food and beverage sales as they relate to restaurant operations. The basics of personnel supervision and management will be included. Purchasing, record keeping and accounting will be stressed.

HMT 367-3 Restaurant Administration II (3 + 0)*Prerequisite:* HMT 366

The culminating course in restaurant administration. It brings together all facets of administration, management and marketing touched on in previous courses. Employer-employee relations, purchasing, sales, and public relations are included with the goal of operating a profitable business.

HMT 375-3 Promotion Materials: Analysis and Design (2 + 2)

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. Laboratory work is included.

HMT 376-3 Meeting Administration II (2 + 2)*Prerequisites:* HMT 276 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 378-3 Leadership by Objectives (3 + 0)*Prerequisite:* Junior standing or permission of instructor

A course designed to provide the student with both knowledge and application techniques for accomplishing the objectives of both groups and organizations. Class work involves lecture, observation of leaders and class use of leadership techniques.

HMT 380-2 Risk Management in the Travel Industry (2 + 0)*Prerequisites:* HMT 181, 182, 183 or permission of instructor

Risk Management reviews the major areas of risk in the retail travel agency, airline, corporate travel department, and tour firm. Students learn both insurance and noninsurance approaches toward analyzing, reducing, sharing and eliminating corporate and personal risks through texts, case studies, and hands-on experience.

HMT 381-2 Foreign Independent Tours (2 + 0)*Prerequisite:* HMT 181

A course designed to study the development and implementation of foreign independent tour travel strategies.

HMT 383-2 Inflight Services (2 + 0)

Inflight Services explores the range of inflight services careers. Students learn the job duties of a steward and stewardess and of inflight supervisory/management personnel. Safety, security, customer handling, and normal procedures are discussed in detail. The course concludes with approaches toward getting a job in inflight services.

HMT 384-3 Airport Services (2 + 2)

Airport Services explores the jobs held by airline employees in public contact positions from arrival baggage check-in through aircraft boarding and including ramp service positions. Job classifications, duties and requirements are reviewed.

HMT 385-4 Financial Management in the Travel Industry (4 + 0)*Prerequisites:* HMT 103 and MTH 121 or permission of instructor

Principles of travel agency budgeting is taught in accordance with the Airlines Reporting Corporation and Cruise Lines International Association requirements. Financial ratios and financial management case problems are studied and travel payment systems are reviewed.

Course Descriptions

HMT 386-2 Incentive Travel (2 + 0)

Prerequisites: HMT 181 and HMT 182 or permission of instructor

As an introduction to incentive travel, the student will obtain an overview of the incentive travel industry. Business incentive programs will be studied and each student will prepare an incentive travel program for a Colorado company as a group project. Students may expect to spend additional hours undertaking out-of-class projects.

HMT 389-2 Cases in Corporate Travel Management (2 + 0)

Cases relating to major corporate travel management problems are explored in-depth with corporate travel industry guest executives presenting the cases and evaluating the case solutions.

HMT 400-3 Externship II (0 + 9)

Prerequisite: Satisfactory completion of HMT 200 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 200 but on a more rigorous, advanced and administrative level. A final paper, approved by the HMTA externship supervisor is required. Maximum credit: 6 semester hours.

HMT 401-1 Externship III (0 + 3)

Prerequisites: HMT 400 and/or life 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 Externship or job experience. Maximum credit: 3 semester hours.

HMT 404-2 Senior Hospitality Research Experience I (2 + 0)

Prerequisite: Senior standing, twelve hours in major emphasis, MTH 121, senior level writing ability, and satisfaction of all Level I and Level II General Studies course requirements

A team-taught course designed to provide the approaches and techniques necessary for the senior student to analyze needs, create and develop a major research project and effectively interpret results and their application to her/his major emphasis area. (General Studies Course - Level III, Senior Experience)

HMT 440-2 Senior Hospitality Research Experience II (2 + 0)

Prerequisites: HMT 404, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

This course is a continuation of HMT 404 and involves team-guided completion of the major research project begun in HMT 404. Project completion benchmarks are established. Class oral presentations and discussions of work accomplished are included. (General Studies Course-Level III, Senior Experience)

HMT 450-3 Hospitality Sales (2 + 2)

Prerequisite: HMT 357 or MKT 300

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 459-2 Seminar in Hotel Administration (2 + 0)

Prerequisites: Junior or senior standing plus 20 hours credit in hotel courses or permission of instructor

This course considers special problems in hotel-motel administration such as: downtown vs. airport, resort vs. city properties. Emphasis is placed upon problem-solution approaches. Major paper required.

HMT 465-3 Hospitality Employee Resource Development (3 + 0)

Prerequisite: HMT 367, or HMT 352, 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 466-3 Training and Development in Hospitality (3 + 0)

Prerequisites: Junior or senior standing, HMT 465, a minimum of 20 hours of HMT courses and either HMT 352 or HMT 367

A continuation of HMT 465 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 469-2 Seminar in Restaurant Administration (2 + 0)

Prerequisites: Junior or senior standing plus HMT 366 or permission of instructor

The course considers special problems in restaurant administration such as: fast food service, volume feeding, and stock control in relation to type of operation. Emphasis is placed upon problem-solution approaches. Major paper is required.

HMT 472-3 Meeting Law (3 + 0)

Prerequisites: MGT 221 and HMT 276

Tort and contract law are applied to meeting planner contracts with suppliers. Concepts of civil rights, fire codes, tax laws for on-shore and off-shore meetings, negligence and guest-innkeeper relationships are studied as they apply to meeting planner liability.

HMT 473-3 Principles of Negotiation (2 + 2)

Prerequisite: Permission of instructor

Basic principles of individual and team negotiation as applied to industry are covered. Emphasis is placed on developing aspiration levels and fall back positions, strategies and tactics of accomplishing the levels, and thorough preparation for the negotiation. Students participate in two negotiating situations.

HMT 479-2 Seminar in Meeting: Variable Topics (2 + 0)

Prerequisite: HMT 376 or permission of instructor

The course considers special problems in meeting administration such as: transportation regulatory laws, etc. Emphasis is placed upon problem-solution approaches and prediction. Major paper required.

HMT 481-4 Tour Management (3 + 2)

Prerequisites: Junior or senior standing, HMT 284, 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 develop, promote, conduct, and evaluate tours based upon their research and marketing.

HMT 482-4 Marketing in the Travel Industry (4 + 0)

Prerequisites: HMT 181 and HMT 182

This course is designed to provide an introduction to travel marketing. Concentration will be on the development of an annual marketing plan. Upon completion, the student should be able to perform all basic duties of a travel executive with marketing responsibilities.

HMT 483-2 Corporate Travel Management (2 + 0)

Prerequisites: HMT 181, HMT 182, HMT 183 or permission of instructor

Corporate Travel Management provides an overview of the job held by the corporate executive in charge of travel. It describes corporate travel department organization, job duties, and job requirements and it provides an education in the development of a corporate travel policy, request for proposals, and vendor relationships.

HMT 484-4 Travel Industry Management (4 + 0)

Prerequisites: HMT 181, HMT 182, HMT 183 or permission of instructor

A simulation travel agency start-up exercise, including Airline Reporting Corporation (ARC) appointment filing, is followed by learning modules relating to starting or buying and managing retail travel agencies. Travel Law and Risk Management are covered in detail. Tour companies, all cruise agency and corporate travel department management approached are studied as well; the course ends with a complete review of travel agency and corporate travel automation management.

HMT 485-2 Airline Sales (2 + 0)

Prerequisites: HMT 181, HMT 182, and HMT 404

Airline Sales is a course designed to introduce students to the field of full-time sales work in the marketing division of major U.S. and international air carriers. It emphasizes the entry-level position of a regional telemarketing travel agency customer service representative, but explores in detail sales representative jobs with district and regional responsibilities for interline sales, travel agency sales and corporate sales. Both passenger and cargo sales are covered.

HMT 489-2 Seminar in Travel: Variable Topics (2 + 0)

Prerequisites: HMT 282 and HMT 404 or permission of instructor

Current travel industry problems are considered in a group situation. Students are encouraged to explore areas and problems in which they feel a need or interest. The course is designed as a culmination of the travel administration major.

Human Performance, Sport & Leisure Studies

HPL 100-2 Human Performance and Leisure Activities (1 + 2)

A wide variety of two credit classes designed for the interest of the general student body. These classes do not serve the needs of human performance and sports or leisure studies majors. All HPL classes include a cognitive component with written and reading assignments, testing and laboratory activities.

HSL 150-2 Human Performance, Sport and Leisure Studies (1 + 2)

Courses which human performance and sports and leisure studies majors and minors must take to meet departmental skill requirements in various physical behaviors. These courses also cover methods of teaching and field experience assignments. All HSL 150 courses include a cognitive component with written and reading assignments, testing and assigned laboratory activities.

HPS 160-2 Introduction to Human Performance and Sports (1 + 2)

For human performance and sport majors. A survey course designed to orient prospective teachers to the field of human performance and sports. Lecture, discussion and field experience.

HPS 202-3 Community Health (3 + 0)

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 206-3 Advanced First Aid and Cardiopulmonary Resuscitation (3 + 0)

This course is designed for the professional and layperson to prepare them for most situations when emergency first aid care or cardiopulmonary resuscitation is needed.

HPS 210-2 Officiating (1 + 2)

Prerequisite: HSL 150 in appropriate sport

Courses designed for students who wish to acquire or perfect officiating skills. Field experience assignments will be a required part of the classes. May be repeated for credit as the course title changes.

HPS 216-3 Water Safety Instructor Certification (2 + 2)

Prerequisite: Advanced Livesaving Certification or Lifeguard Training

This course studies the methods of teaching water safety, skill analysis and correction. Course leads to Red Cross Safety Instructor Certification. Field experience assignments will be a required part of the class.

HPS 244-3 Dance Production (3 + 0)

Prerequisites: HSL 150 (Repertory Choreography), HSL 150 (Improvisation and Choreography), HSL 150 (Teaching Dance), 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 250-3 Activities for the Young Child (2 + 2)

Course is designed to acquaint the student with appropriate sports, games, gymnastics, and tumbling skills for the young child. Teaching progressions, safety factors, items of equipment, spotting techniques, and leadership experiences are included.

HPS 252-2 Rhythms for the Young Child (1 + 2)

Participation and instruction in the fundamental movements, forms, and patterns of creative dance, rhythms, and singing games for children.

HPS 258-3 Movement Education (2 + 2)

Participation and instruction in the problem-solving method of teaching movement exploration. Designed for teachers of preschool and elementary children. Field experience assignments will be a required part of the class.

HPS 278-3 Care and Prevention of Athletic Injuries (2 + 2)

Prerequisites: HPS 206 or current Advanced First Aid and CPR Card

A course designed to provide study into recognition, cause, prevention, treatment and various physical therapeutic procedures for sports injuries.

HPS 300-3 Health Programs in Human Performance and Sport (3 + 0)

A course designed to give the prospective professional in human performance and sports a foundation in health and safety education, including content for health and safety instruction, promotion of healthful living, and an understanding of the health services program.

HPS 312-2 Fundamentals of Coaching (2 + 0)

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.

HPS 330-3 Anatomical Kinesiology (3 + 0)

Prerequisite: BIO 231 or approved equivalent

A study of the musculature of the human body. Analysis of joint movement and muscular involvement in various physical activities.

HPS 332-3 Biomechanics (2 + 2)

Prerequisite: HPS 330 or permission of instructor

Application of the principles of mechanics, physics, and mathematics to the analysis of sport activities. Cinematography, motion analysis, and prediction of performance will be essential aspects of this class.

HPS 334-3 Physiology of Exercise (2 + 2)

Prerequisite: BIO 232, or acceptable human physiology course and HSL 150 Physical Fitness

Effect of exercise on the various systems and organs of the body.

HPS 340-3 Methods of Teaching Human Performance and Sports for the Adolescent and Young Child (3 + 0)

Prerequisite: Junior standing

Course is designed to present alternative instructional strategies on a practical application level to potential professionals who will instruct adolescents and young adults in a school setting and the community. A cumulative strategies course established to reach those who shortly will go into their student teaching learning experience or professional field experience in human performance and sports.

HPS 346-3 Evaluation and Measurement in Human Performance, Sport and Leisure Studies (3 + 0)

Prerequisite: Junior standing

Students will have the opportunity to learn and apply concepts of measurement and evaluation in human performance, sport and leisure studies.

HPS 350-3 Methods of Teaching Human Performance and Sports for Children (3 + 0)

Prerequisite: Junior standing

Methods of teaching (traditional, exploratory, combined), techniques of class control and management, program planning, and organization will be covered in this course. Also included will be professional responsibilities in the total human performance and sports program.

HPS 362-2 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 block countries.

HPS 370-2 Psychology of Coaching (2 + 0)

Psychology of coaching various sports. An in-depth study of motivation of the athlete and how the athlete responds under given conditions.

Course Descriptions

HPS 372-3 Science and Art of Coaching and Athletic Administration (3 + 0)

This course covers principal aspects of coaching pedagogy and the organizational and planning techniques necessary for successful coaching.

HPS 378-2 Fitness Programs for Special Populations (2 + 0)

Prerequisite: HSL 150 (Fitness)

Discusses ways to adapt fitness programs to meet the needs of people with special exercise requirements such as diabetes, asthma, emphysema, coronary heart disease and pregnancy.

HPS 391-3 Safety Education (3 + 0)

Provides the student with knowledge about accident prevention in many areas: home, school, physical and recreational activities, traffic and community.

HPS 399-1-3 Field Experience in Human Performance and Sports (0 + 2) or (0 + 4) or (0 + 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 certification.

HPS 450-3 Psychology of Motor Learning (3 + 0)

Prerequisite: Junior standing or permission of instructor

This course studies the concepts of motor learning and the deviations which might occur in the typical student. Emphasis will be placed on the various aspects of skill acquisition, perception, and motor control.

HPS 460-3 Organization, Administration of Human Performance and Sports Programs (3 + 0)

Prerequisites: Junior standing, HPS 160

The organizational and administrative policies and procedures for conducting and administering human performance and sports programs, including physical education settings.

HPS 462-3 Adaptive Human Performance and Sports Activities (2 + 2)

This course is designed to adapt human performance and sport activities to the physically and mentally impaired in school and community settings. The course offers field experiences in selected settings for HPSL majors and minors.

HPS 466-3 Legal Liability for Physical Educators, Coaches and Administrators (3 + 0)

Prerequisites: Some coaching and/or formal courses (6 hours) in human performance & sport, leisure studies, or health

An elective course designed to inform physical education teachers, coaches, and administrators of the implications and responsibilities of a liability nature involved in school or recreation activity and competitive programs.

HPS 468-2 Advanced Exercise Assessment Techniques (1 + 2)

Prerequisite: HPS 334

This course is designed to acquaint the student with the maintenance of exercise laboratory equipment and its use in evaluating physiological capabilities during exercise. Experience with physiological testing using laboratory equipment is given as well as on-site visitations to other laboratory settings.

HPS 478-3 Advanced Techniques in Athletic Training (3 + 0)

Prerequisite: HPS 278

This course examines the cause and effect of injuries as related to athletic training, with special attention to management, rehabilitation and prevention of athletic injuries.

HPS 484-2 Comparative Fitness Programs (2 + 0)

Prerequisites: HSL 150 (Fitness), HPS 334

This course explores 1) current trends, issues and environments in adult fitness management, 2) comparison of selected popular fitness and evaluation programs, 3) certification programs and employment available for adult fitness personnel. This course will provide opportunities for on-site visitations as well as practical experience with different fitness programs.

HPS 489-10 Internship (Variable Title) (0 + 30)

Prerequisites: Senior standing with major in human performance and sport, adult fitness or athletic training Emphases, completion of three quarter of major/minor program, GPA of 2.75 is required

Course offering may be under human performance & sport Internship, athletic training internship, adult fitness exercise science internship. This experience is designed for those majors who need a practical experience in their major. Graded as Satisfactory/Unsatisfactory.

LEISURE STUDIES COURSES

LES 187-2 Introduction to Recreation and Leisure Services (2 + 0)

This course will study recreational concepts, such as developing a recreational philosophy, reviewing historical issues, and understanding the relationship of various governmental, institutional and private agencies.

LES 211-3 Leadership Techniques in Leisure Services (2 + 2)

Prerequisites: LES 187 or approval of instructor

This course is a study of leadership techniques in planning and implementing activities for leisure services delivery systems.

LES 215-3 Maintenance of Recreation Facilities and Equipment (3 + 0)

This course is a study of maintenance procedures identified with recreation service delivery systems such as recreation centers, parks, open spaces, aquatics, and commercial facilities.

LES 217-2 Recreation Arts and Crafts (2 + 0)

Course relates to myriad forms of recreational art and craft programs conducted in schools, youth-serving agencies, camps, public and private recreation agencies. Emphasis will be directed toward nature and meaning of crafts, graphic and manipulative arts and instruction methods.

LES 233-3 Advocacy and Social Action Programs for the Aged (3 + 0)

An exploratory study of advocacy and social action programs representing and providing services for the aged. The course will provide an opportunity for students to become associated/involved with advocacy and social action programs at the local, state and national level.

LES 235-3 Leisure Education and Recreation for Special Populations (3 + 0)

Study related to providing recreation services and activities to those persons who are restricted because of mental, physical, social, cultural, age, or economic conditions.

LES 307-3 Health and Movement Problems in the Aging Adult (3 + 0)

Prerequisites: HSL 150 (Fitness), BIO 231, BIO 232

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. Course will include opportunity for on-site observation and involvement.

LES 333-3 Introduction to Therapeutic Recreation Services (2 + 2)

Prerequisite: Permission of Instructor

This course is a study of the therapeutic recreation services provided for special populations administered by federal, state and local health care and treatment facilities. Emphasis will be directed toward agency organization, administration and therapeutic leadership. Course includes involvement with various health care facilities in the Denver area.

LES 337-3 Group Leadership in Therapeutic Recreation (3 + 0)

This course teaches the student of therapeutic recreation to understand how leadership and group dynamics relate to therapeutic recreation in a health care program for physically and mentally disturbed individuals. A supervised field assignment will be required in a therapeutic recreation program.

LES 341-3 Camping and Outdoor Recreation (3 + 0)

Prerequisite: LES 211

This course will review history, trends, objectives, programs, skills, and techniques common to camp and outdoor recreation programs.

LES 359-2 Teaching the Handicapped to Swim (1 + 2)*Prerequisite:* HPS 216

Methods of teaching swimming to students with disabilities including: orthopedic, learning disabilities, mentally retarded, emotionally disturbed, sight and hearing difficulties, etc. Course leads to Red Cross Handicapped Swimming Certificate.

LES 371-2 Administration of Intramural Sports and Student Recreation (2 + 0)

Study of problems and techniques of organization and administration for intramural and recreation programs in schools and colleges.

LES 383-3 Open Space and Leisure Resource Development (3 + 0)*Prerequisite:* LES 215

This course is directed toward the administrative planning and development aspects of open space and recreation capital improvements, fiscal planning, resource service analysis, environmental, socioeconomic and socio-political relationships with regional planning and inter-regional, resource agencies.

LES 387-1 Recreation Internship Seminar (1 + 0)*Prerequisite:* Second semester junior or permission of instructor

This course prepares the student for an internship placement with a recreation agency.

LES 399-1-3 Field Experience in Leisure Studies (0 + 2) or (0 + 4) or (0 + 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 certification.

LES 411-3 Recreation Program Construction and Control Processes (3 + 0)*Prerequisites:* LES 187, LES 211, and LES 235

This course is designed to prepare students for effective program development and budget control processes in various types of leisure service programs. Special attention will be given to programs for public/private recreation centers and other leisure resource agencies.

LES 413-3 Administration of Recreation and Leisure Resources (3 + 0)*Prerequisite:* LES 411

This course is an intensive study of the principles, practices and programs involved in administering municipal park and recreation systems. Emphasis will be placed at the management functioning levels as they relate to legislation, personnel practices, policy development and implementation, budgeting and finance, legal responsibilities and agency planning.

LES 437-3 Techniques in Therapeutic Recreation (2 + 2)*Prerequisite:* LES 333

A study of procedures and techniques used in a systems approach to client-centered program planning and management concerns in therapeutic recreation.

LES 455-3 Management of Aquatic Resources (3 + 0)*Prerequisites:* HPS 216, HSL 150 (Swimming)

This course emphasizes the management, operation, and development of aquatic resources. There will be a focus on developing a program of services of both indoor and outdoor resources with concern toward staffing, supervision, programming and resource management policy and procedures.

LES 463-3 Recreation Programs for the Elderly (3 + 0)*Prerequisite:* LES 235

This course studies the role of recreation and leisure services as they relate to understanding the needs of services to the elderly. Emphasis will be on recreation planning for older adults in public recreation agencies, private and health care facilities.

LES 465-3 Urban Recreation Program Services (2 + 2)*Prerequisites:* LES 211 and LES 235

An understanding of the recreational needs of the urban population. Emphasis will be directed to urban program planning, advocacy involvement, political influences, management procedures, and community involvement.

LES 473-3 Sociology of Athletics in American Society (3 + 0)*Prerequisites:* SOC 101 and junior standing

To examine and utilize basic sociological concepts and demonstrate their manifestations in areas of recreation and athletics. To analyze the relationship of sports to society.

LES 481-3 Grants and Financial Aid Programs in Recreation (3 + 0)*Prerequisites:* LES 211, LES 215 or permission of instructor

This course acquaints the student with federal, state and private education grants and their impact on state and local governments and resource agencies.

LES 485-3 Management and Operations of Leisure Services and Resources (3 + 0)*Prerequisites:* LES 215, LES 411, LES 413

This course presents an in-depth review of data relating to the need for and the effectiveness of leisure services, facilities, and equipment resources. Focus will be directed toward development and implementation of operational policies and effective analysis of agency goal and objective achievements.

LES 489-12 Recreation Internship (0 + 36)*Prerequisites:* Recreation major, Senior status, completion of three-quarters of major/minor program, and LES 387 and GPA of 2.75 required

This course provides practical experience for the advanced student within a leisure service agency. Supervision is provided by both the instructional staff of the college and cooperating agencies. Evaluation of course will be assessed "S" satisfactory or "U" unsatisfactory.

Human Services**HSW 101-4 Introduction to Human Services and Community Resources (4 + 0)**

Provides a basic understanding of the roles and functions of the new generalist worker in human services. Examines attitudes and objectives that the student should attain. Introduces the student to the various community resources available in the application of human services programs.

HSW 104-4 Behavior Modification (4 + 0)

Application of learning theory to the modification of maladaptive behavior and the development of adaptive behavior.

HSW 111-4 Introduction to Developmental Disabilities (4 + 0)

Provides an introduction to the field of mental retardation with some discussion of causes, types, and treatment.

HSW 147-3 Addictive Experiences: Sex, Drugs, Rock and Roll (3 + 0)

How much is too much in the addictive lifestyles in contemporary America? It 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.

HSW 202-4 Small Group Dynamics: Theory and Experiences (3 + 2)

Theory of group experiences and effectiveness so one can recognize the dynamics of interpersonal interaction, predict dynamics accurately, participate effectively, demonstrate effective leadership skills, and to exercise control of the interaction in a small group situation.

HSW 203-4 Introduction to Theory and Techniques in Interviewing and Psychotherapy (4 + 0)

Familiarizes students with theoretical approaches to psychotherapy, with a primary emphasis on those applications which rely on the dyadic interview process. Students are expected to participate in interviews following formats suggested by selected theoretical approaches.

Course Descriptions

HSW 204-4 Family Functions, Dysfunction, and Therapy (4 + 0)

Prerequisite: HSW 203 or permission of instructor

Provides a brief review of family functions and the roles of family members, both traditional and changing. Describes theoretical and therapeutic systems in which family theory serves as a guide for the therapist in doing family psychotherapy.

HSW 205-8 Human Services Practicum I (2 + 12)

Prerequisites: HSW 101, HSW 104, HSW 202, HSW 203, HSW 204, or permission of instructor

Seminar and a 300-hour practicum in a human services institution. Experience and training in the fundamentals of evaluation, treatment, dynamics, relationships, and effective functioning. The student may register twice for this course in an alternate area of emphasis.

HSW 206-8 Human Services Practicum II (2 + 12)

Prerequisites: HSW 101, HSW 104, HSW 202, HSW 203, HSW 204, or permission of instructor

Seminar and 300-hour advanced practicum in a human services setting. Experience and training in the fundamentals of evaluation, treatment, dynamic therapeutic relationships, and effective functioning. The student may register twice for this course in an alternate area of emphasis.

HSW 211-3 Individual Programming for the Developmentally Disabled (3 + 0)

Provides students with a basic knowledge for design, implementation and evaluation of programs for the developmentally disabled person. Provides information about the technologies available, assessment models and components of successful educational and vocational environments.

HSW 248-6 Addictions Practicum I (0 + 12)

Prerequisites: HSW 203, HSW 204, and HSW 347

This internship experience at a cooperating alcohol counseling/treatment center provides the opportunity for trainees to gain meaningful work experience in treatment techniques, and how to apply knowledge learned in previous coursework.

HSW 249-6 Addictions Practicum II (0 + 12)

Prerequisite: HSW 248

This internship experience at a cooperating drug counseling/treatment center provides the opportunity for trainees to gain meaningful work experience in treatment techniques, and how to apply knowledge learned in previous coursework.

HSW 311-4 Human Services for Handicapped Persons (4 + 0)

Prerequisite: HSW 205 or permission of instructor

Provides an overview of causes and treatment for the physically handicapped, mentally retarded, emotionally disturbed, and other handicapped children and adults.

HSW 323-4 Contemporary Diagnostic and Treatment Programs in Corrections (4 + 0)

Prerequisite: HSW 205, or HSW 206, or permission of instructor

An analysis of differential diagnosis and treatment methods and techniques in helping juveniles relate their own ability in understanding their interpersonal relationships with self and others in the environment in terms of behavior, emotions, and motivations. Prescribed treatment plans are included.

HSW 341-3 Alcoholism Family Counseling Advanced Topics (3 + 0)

Prerequisite: HSW 204 or permission of the instructor

Investigation of diverse issues related to working with substance-abusing couples and families. Topics include: the adolescent abuser and family, marital therapy, sex therapy, multiple couple and family treatment, work with the child-centered and single parent family. Emphasis is on the practical application of outlooks and methods covered.

HSW 343-3 Addictive Behaviors (3 + 0)

Prerequisites: HSW 104 and HSW 203

This course provides a detailed study of specific addictive behavior patterns and usual treatment methods. The focus is to help students clarify a theory of addiction, gain knowledge about addictive behaviors and learn current treatment practices utilized in the field. Students will be expected to visit treatment programs.

HSW 344-3 Addictions Research Seminar (3 + 0)

Prerequisites: HSW 343, MTH 190 or equivalent

Designed for Human Services majors in Drugs, Alcohol, and Addictive Behaviors to research their specific area of interest in addictions. In addition, students will learn basic concepts and skills in surveying literature, synthesizing and critically analyzing research articles and methodology utilized in addictions research.

HSW 345-4 Crises Intervention and Legal Issues (4 + 0)

Prerequisites: HSW 203 and HSW 204

Focuses on crises intervention and legal aspects applicable to the field of human services. The coursework is designed to give the student an opportunity for competencies development, and increased understanding of emergency, legal, and therapeutic interventions.

HSW 347-4 Counseling the Substance Abuser (4 + 0)

Prerequisite: HSW 203

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.

HSW 375-4 Holistic Health and High-Level Wellness (4 + 0)

Prerequisite: PSY 275 or permission of instructor

This course will give students the opportunity to explore and evaluate high-level wellness and nontraditional alternatives to the Western medical model. It will emphasize the interrelatedness of stress, diet, exercise, environmental sensitivity, and self-responsibility.

HSW 411-2 Understanding the World of the Disabled Adult (2 + 0)

Prerequisites: HSW 111, HSW 311 or permission of instructor

The course is designed to provide the student with an understanding and awareness of the disabled adult through lectures, sensitivity training and field experiences.

HSW 432-4 Psychopathology and the Mental Health Clinician (4 + 0)

Prerequisites: Two of the following: HSW 205, HSW 206, HSW 248, HSW 249, or permission of instructor

Provides critical analyses of current definitions of psychopathology and of the prevailing models of mental disturbance. Explores the strengths and problems of current labeling systems and the societal implication of mental health typologies.

HSW 436-4 Advanced Intervention Techniques (4 + 0)

Prerequisites: Two of the following: HSW 205, HSW 206, HSW 248, HSW 249, or permission of instructor

An advanced therapeutics course designed for the human services specialist utilizing a symptomatic/multimodality approach.

HSW 449-1-4 Contemporary Issues in Human Services: Variable Topics (1-4 + 0)

Prerequisites: Junior standing and/or permission of instructor

A variable titled course focusing upon the synthesis of the concepts and skills of the human services professional. Designed to provide the human services professional with an educational forum in which to integrate the theoretical base of the helping services and applied human services practice. May be repeated under different titles.

HSW 465-4 Group Facilitation and Group Counseling (4 + 0)

Prerequisite: HSW 202 or permission of instructor

Comprehensive experience in facilitating small groups to develop leadership skills and learn techniques of group psychotherapy.

HSW 468-4 Supervisory Techniques for Health Care (4 + 0)

Prerequisites: Two of the following: HSW 205, HSW 206, HSW 248, HSW 249, or permission of instructor

Presentation of basic principles and methods involved in the supervisory process. Supervision is presented as a highly individualized and subjective function involving conscious aims as well as unconscious values, attitudes, and strivings.

HSW 470-3

(AAS 470) Seminar in Black Mental Health (3 + 0)

Prerequisite: Upper-division status

This course focuses on the application of mental health theory and principles to Black clients in urban settings. Emphasis will be given to an intense and comprehensive consideration of theoretical perspectives and research concerning the problem of Black mental health, and applications to its assessments and treatments. Credit will be granted for only one of these courses.

HSW 479-12 Professional Internship (1 + 33)

Prerequisites: HSW major with senior standing and/or approval of department chair and satisfaction of all Level I and Level II General Studies course requirements

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. (*General Studies Course—Level III, Senior Experience*)

Industrial and Technical Studies**ITS 101-4 Introduction to Woodworking (2 + 4)**

An introductory course designed to give the student basic information about woods, their selection and use, and to provide the basic skill development in the use of selected woodworking tools, machines and practices. Finishing and preservation of wood will also be studied and utilized.

ITS 103-2 Finishing Materials and Processes (1 + 2)

A study of materials, processes and procedures used in the finishing of industrial products. Includes preparation, abrasives, natural and synthetic coatings, chemical treatments used in the woods, metals, and plastics industries.

ITS 113-3 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.

ITS 120-2 Introduction to General Metals: Cold Metals (1 + 2)

A combination lecture/laboratory course covering machine metals, sheet metal and bench metal areas. Emphasis on student designed projects, forming, cutting, and finishing.

ITS 122-2 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.

ITS 143-2 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 constructions, orthographic projections, and dimensioning.

ITS 150-2 Introduction to Graphic Arts I (1 + 2)

An introduction to the graphic arts industry. Experiences include layout and design, composition for letterpress, and silk screen.

ITS 151-2 Introduction to Graphic Arts II (1 + 2)

An introduction to the graphic arts industry. Experiences include layout and design, composition, process camera, and darkroom procedures for offset lithography.

ITS 166-3 Introduction to Power (1 + 4)

This course deals with the theory, application, transmission and control of hydraulic, pneumatic and mechanical power systems. Attention also is given to the study of the internal combustion engine.

ITS 171-2 Consumer Electricity and Electronics: Communication Systems (1 + 2)

Prerequisite: PHY 100

A lecture/laboratory course covering electrical and electronic theory and its practical application pertaining to telephone electronic and light transmission and receiver systems.

ITS 172-2 Consumer Electricity and Electronics: Control Systems (1 + 2)

Prerequisite: PHY 100

A lecture/laboratory course covering electrical and electronic theory and its practical application pertaining to numerical and electronic control devices used in industrial production.

ITS 175-2 Consumer Electricity and Electronics: Residential Systems (1 + 2)

Prerequisite: PHY 100

This is a lecture/laboratory course covering an introduction to electrical/electronic theory and its practical application in electronic circuits and in residential distribution control, alarm and information systems.

ITS 231-2 Art Metal, Silversmith, and Lapidary (1 + 2)

Covers the processes of fabrication in gem cutting and mounting, hand wrought, sand casting and investment casting of metals. Also includes metal forming, tooling, spinning, etching, enameling, and powdered metallurgy. Student may specialize in one or more areas.

ITS 255-3 Introduction to Photography (1 + 4)

A first course in photography that contains the essential information to take and make good black and white pictures. Color photography will also be discussed.

ITS 269-2 Alternate Energy & 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.

ITS 281-3 Technology, Society, and You (3 + 0)

Prerequisites: Satisfaction of the Level I Mathematics requirement and either ENG 101 or the Level I Communication requirement

This course is designed to focus on the impacts and implications technology has or will have on society. The course presents students with the opportunity to study and develop an understanding of how technology affects people, families, education, economics, politics, and ethics. History and future implications will also be studied. Emphasis will be placed on people's understanding of industrial materials, processes, and control of technology. (*General Studies Course - Level II, Social Sciences*)

ITS 283-2 Manufacturing Organization and Processes (2 + 0)

This course is combination lecture/lab course outlining the internal organizational structure, function, and operation of a variety of manufacturing industries. Laboratory experiences will focus on commonly shared processes in raw materials and production of jigs and fixtures.

ITS 310-4 Advanced Plastics (2 + 4)

Prerequisite: ITS 113

An in-depth study, lecture and lab, of the materials, processes and procedures used in the plastics industries.

ITS 321-4 Advanced Metalworking (2 + 4)

Prerequisites: ITS 120 and ITS 122

Advanced study and laboratory experience in metal fabrication including sheet and ornamental metal, foundry, welding, and machine. Introduction to the fundamentals of numerical controlled production.

ITS 341-3 Computer Aided Drafting for Industry (1 + 2)

Prerequisite: ITS 143 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.

ITS 350-4 Advanced Graphic Arts (2 + 4)

Prerequisites: ITS 150 and ITS 151

An in-depth study, lecture and lab, of the methods and processes which produce a number of copies of pictorial, decorative, or typographic arrangements on paper or other surfaces, by offset lithography, and screen processes.

ITS 370-3 Industrial Safety (3 + 0)

Prerequisite: Completion of Trade or Technical Associate degree program or permission of instructor

Industrial safety related to industry and school shops. Includes history, accident facts, liability, psychology, worker performance, industrial methods of operation and sources of information.

ITS 371-3 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, future trends.

Course Descriptions

ITS 372-3 Characteristics of Industrial and Technical Personnel Selection, Supervision and Evaluation (3 + 0)

Prerequisite: Completion of Trade or Technical Associate degree program or permission of instructor

Deals with the unique characteristics that exist in trade or technical operations including the selection, supervision and evaluation of personnel in industry. A practical study of the career mobility opportunities and future trends in personnel management in industry.

ITS 380-4 Industrial Safety and Production (2 + 4)

Prerequisites: ITS 101, ITS 113, ITS 120, and ITS 122

A combination lecture/laboratory course covering safety practices and procedures and fundamentals of industrial production. Experience is gained in production planning, design, and construction of jigs and fixtures used in mass production.

ITS 381-2 Industrial Arts for the Elementary School (1 + 2)

Includes the development of some basic tool skills that classroom teachers may find useful in using the industrial arts to enrich other disciplines. The use of career education as an awareness of occupations is included.

ITS 403-4 Advanced Wood Processes (2 + 4)

Prerequisite: ITS 101 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.

ITS 420-4 Welding Technology (2 + 4)

Prerequisite: ITS 122 or permission of instructor

A combination lecture/laboratory course which includes practical exercises and weldment testing involving the following processes: shielded metal arc, MIG, TIG, oxyacetylene welding, brazing and flame cutting.

ITS 441-3 Computer Aided Drafting for Industry II (1 + 4)

Prerequisites: ITS 143 and ITS 341

This course is a continuation of the principles of Computer Aided Drafting (CAD). Advanced operations of AutoCAD will be used to produce drawings that are consistent with industry standards.

ITS 471-8 Trade and Technical Practicum (1 + 14)

Prerequisite: Completion of 112 credits beyond associate degree in a trade or technical program

An advanced level supervised field experience in an area related to the Technical and Industrial Administration major. The field experience is conducted by an affiliated organization in collaboration with the Industrial and Technical Studies faculty and the student.

ITS 473-3 Assessment of Trade and Technical Enterprises (3 + 0)

Prerequisite: Completion of Trade or Technical Associate degree program or permission of instructor

A study of the methods of assessing specific trade and technical industries and competitive products; techniques of market sampling, product development and promotion; patent law and patent search.

ITS 474-2 Organizational Structures for Technical Enterprises (2 + 0)

Prerequisite: Completion of Trade or Technical Associate degree program or permission of instructor

An examination of organizational structures such as sole proprietorship, partnerships, corporations, and franchises. Attention is given to liability and tax implications.

ITS 481-3 Curriculum and Methods of Teaching Industrial Arts (2 + 3)

Prerequisite: ITS 380

A study of the history, philosophy, and objectives of industrial arts. Development of a course of instruction including unit and lesson plans. Experience in development and execution of appropriate instructional methods. Three clock hours per week must be arranged concurrent with, and by permission of the instructor of one of the Industrial and Technical Studies core courses.

ITS 483-3 Organization and Administration of Industrial Arts (3 + 0)

Prerequisite: ITS 380

Three areas of emphasis are included: (1) Planning and organizing multiple activity facilities and programs, (2) the selection and maintenance of equipment, and (3) the teacher's role in the organization and administration of an effective industrial arts program, including individual courses. Working with advisory committees as a means of program development will be emphasized.

ITS 484-2 Emerging Technologies (2 + 0)

Prerequisites: Senior standing and ITS 281

This course is designed to study the creation and utilization of adaptive means, including tools, machines, materials, techniques, and systems. Tools and technical systems have enabled humankind to survive and have had an effect on the physical world. This course will discover and explore the very latest technologies that affect our lives.

ITS 486-2 Research in Industrial Technology (2 + 0)

Prerequisites: Senior standing; ITS majors/minors and TIA majors only

This course provides in-depth research, laboratory experimentation, and/or development of a student-selected and faculty-approved topic in one technical system. The areas of research are: Communications, Manufacturing, and Transportation/Power. The course allows the student the opportunity to further develop problem solving abilities. At the same time, the process enhances the student's knowledge and skills in a technical concentration.

ITS 487-1-5 Special Studies in Industrial and Technical Studies (0 + 2-10)

Prerequisite: Permission of Instructor

A study and investigation of a selected topic in the field of industrial and technical studies. Student may repeat this course in an alternate areas of emphasis.

ITS 496-4 Professional Internship (1 + 9)

Prerequisites: Completion of twelve (12) credits beyond associate degree in a trade or technical program.

The professional internship is the culmination of training for the bachelor's degree in Technical and Industrial Administration. 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.

Intercultural Studies

ICS 100-3 Introduction to Asian-American Studies (3 + 0)

This course focuses on the history of Asians in America, their social and psychological adjustment, their involvement in American economic and political systems. The uniqueness of Asian-American cultures will also be examined.

Journalism

JRN 181-3 Introduction to Journalism and Mass Media (3 + 0)

This course is a survey of the historical development of newspapers and their role in U.S. society, and an exploration of the nature and impact of television, radio, magazines, films, public relations, advertising and technology, and their relationship to journalism.

JRN 182-3 Beginning Reporting and News Writing (3 + 0)

Concentration on development of the basic skills of reporting and news writing, with stress on accuracy, completeness, clarity, speed, and fairness in compiling news stories.

JRN 282-3 Beginning News Editing and Copyreading (3 + 0)

An introduction to the techniques of copy editing, headline writing, page layout and dummyming, and intensive language skills polishing.

JRN 284-3 Fundamentals of Public Relations (3 + 0)

Prerequisites: JRN 181, JRN 182, or permission of instructor

An introductory analysis and practical exploration of the fundamental tools available to the public relations specialist with a stress on public relations practices and theory, and on the preparation of public relations materials, such as press releases.

JRN 286-3 Intermediate Reporting and News Writing (3 + 0)

Prerequisites: JRN 181, 182, or permission of instructor
 News gathering and writing techniques in specific fields, such as politics, urban affairs, judicial, crime, and human interest stories.

JRN 381-3 Feature Article Writing for Newspapers (3 + 0)

Prerequisites: JRN 181, 182, and 286, or written approval of instructor
 The study of content and writing style of newspaper features, with numerous assignments in developing feature ideas and producing finished stories.

JRN 382-3 Public Relations Writing and Strategies (3 + 0)

Prerequisite: JRN 284 or permission of instructor
 News writing, problem-solving, and publication production for institutions and organizations, with emphasis on sound planning and reportorial techniques. Intensive case studies.

JRN 383-3 Contemporary Issues (3 + 0)

Prerequisites: JRN 181, 282 and 286
 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 385-3 Public Affairs Reporting (3 + 0)

Prerequisites: JRN 181, 182, 282 and 286
 Intensive reporting and writing on legislative bodies and public agencies: state legislature, city councils, boards of supervisors, school boards, etc.

JRN 386-3 College Newspaper Practicum (0 + 6)

Prerequisites: JRN 181, JRN 182, JRN 282, JRN 286 and JRN 381
 The student, under supervision, will spend the semester carrying out various reporting, editing, layout and production responsibilities on the college newspaper.

JRN 481-3 Feature Article Writing for Magazines (3 + 0)

Prerequisites: JRN 181, 182, 286, 381 or written approval of instructor
 Intensive study in and application of the techniques and marketing requirements for producing and selling feature articles to magazines, and to digging for and developing polished magazine articles.

JRN 482-3 Advanced News Editing, Copyreading and Principles of Layout (3 + 0)

Prerequisites: JRN 181, 182 and 282
 Advanced instruction and experience in the techniques of copy editing, headline writing, layout, and print media production.

JRN 486-3 Advanced Reporting and News Writing (3 + 0)

Prerequisites: JRN 181, 182, 282 and 286
 An intensive, high-level experience in advanced reporting and news writing, with special emphasis on detailed research into records and documents.

JRN 487-3 Ethical Issues in Journalism (3 + 0)

Prerequisites: JRN 181, 182, 282 and 286; or permission of instructor
 Intensive study into ethical dilemmas and constitutional and legal conflicts in the news media.

Management

MGT 221-3 Legal Environment of Business I (3 + 0)

This course is designed to present the legal system as it applies to business. The course includes a discussion of fundamental concepts related to the nature and sources of law and to the resolution of disputes. Statutes, regulations and related government agencies that regulate employment, securities, trade, and workplace decisions as well as the law of agency, contracts, organizations, and torts are analyzed. Ethical and international aspects of law are treated where appropriate.

MGT 250-3 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 300-3 Organizational Management (3 + 0)

Prerequisites: Junior standing, ECO 201, ECO 202, ACC 201, ACC 202, CMS 201, and MGT 221

This course examines applications of managerial functions and processes as applied to business and other organizations. Human and organizational behavior are discussed within the organizational environment; production techniques and systems in manufacturing and service, which are relevant to organizational management are covered. Ethical concepts and international implications are interwoven throughout.

MGT 302-3 Fundamentals of Entrepreneurship (3 + 0)

Prerequisite: MGT 300
 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 321-3 Commercial and Corporate Law (3 + 0)

Prerequisite: MGT 221 or permission of instructor
 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 322-3 Legal Environment of Business II (3 + 0)

Prerequisite: MGT 221 or permission of instructor and junior standing
 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 353-3 Human Resources Management (3 + 0)

Prerequisite: MGT 300
 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 355-3 Manufacturing and Service Management (3 + 0)

Prerequisites: MGT 300 and familiarity with Lotus 1-2-3 or comparable software and junior standing
 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. Spreadsheet software is utilized to explain and modify a variety of production and service topics.

MGT 400-3 Management Decision Analysis (3 + 0)

Prerequisite: MGT 300 and senior standing
 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 organization dynamics.

MGT 402-3 Entrepreneurial Creativity (3 + 0)

Prerequisite: MGT 302 and senior standing
 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 development.

MGT 405-3 Purchasing and Materials Management (3 + 0)

Prerequisites: MGT 355 and senior standing
 This course investigates the role of purchasing materials management in organizations. It covers the basic conceptual and operational tasks associated with purchasing, including vendor relations and the integration of its activities with engineering, production, marketing, and finance.

Course Descriptions

MGT 442-3 Entrepreneurial Business Planning (3 + 0)

Prerequisites: MGT 302 and MGT 402 and senior standing

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 453-3 Organizational Behavior (3 + 0)

Prerequisites: MGT 300 and senior standing

This course applies behavioral science research and theory to industry in order to learn how the needs of the employee might be more effectively integrated with the requirements of the organization.

MGT 455-3 Project Management (3 + 0)

Prerequisites: MGT 355 and MGT 405 and senior standing

This course investigates the concepts and applicability of systems and project management. The unique nature of the project management structure, including its emphasis on integrative decision making throughout a product's life cycle, is also examined.

MGT 461-3 Labor/Employee Relations (3 + 0)

Prerequisites: MGT 300 and MGT 353

This course provides an understanding of the development and application of labor law and the current posture of the law as it relates to labor-management relations. Cases and illustrations are used to demonstrate collective bargaining and methods of securing industrial peace.

MGT 462-3 Appraisal and Compensation (3 + 0)

Prerequisite: MGT 353 and senior standing

Installation and administration of complete wage and salary programs, including objectives, policy, organization, control, analyses, job descriptions, job evaluation, job pricing, employee evaluation, and job standards.

MGT 464-3 Employee Training Development (3 + 0)

Prerequisites: MGT 300 and MGT 353

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.

MGT 465-3 Managing Productivity (3 + 0)

Prerequisites: MGT 355 and familiarity with Lotus 1-2-3 and senior standing

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 482-3 The Management World (3 + 0)

Prerequisite: Senior standing

This is a senior seminar designed to engage students in a variety of multicultural and international perspectives. Primary focus will include the relationship between cultural ideas, the need for personal and organizational effectiveness, and the implications for management strategy. Dilemmas, resolutions, synergy, etc. will be considered.

MGT 495-3 Strategic Management (3 + 0)

Prerequisites: Final semester preceding graduation; computer literate; must have completed all core requirements and must have completed or coregistered in all required business courses

This is a senior seminar designed to give the student an opportunity to apply acquired business skills to analyzing and solving multifaceted, multinational business problems. Conceptual frameworks address issues in strategy formulation, strategic planning, and organizational implementation of strategies.

Marketing

MKT 200-3 Business and Interpersonal Communications (3 + 0)

Prerequisites: ENG 101 and ENG 102 and sophomore standing

The primary emphasis is on miscellaneous forms of successful oral and written communications in the business world. Instructional activities focus on

communication theory and styles, listening skills, nonverbal communications, application for employment, general business correspondence, vocabulary building, and positive interpersonal communications. Computer software is used for personal assessment and improvement. This course may not be used to satisfy major and minor requirements.

MKT 300-3 Principles of Marketing (3 + 0)

Prerequisite: ECO 202 and junior standing

This course is a comprehensive examination of the theory and practice of modern marketing. Of primary interest are the principles, concepts and methods used to facilitate the exchange of goods and services among manufacturers, resellers and consumers. Students will be exposed to the basic decision areas of research, consumer behavior, product, price, distribution and promotion. Some attention is also given to marketing in international environments.

MKT 301-3 Marketing Research (3 + 0)

Prerequisites: MKT 300 and CMS 330 (or equivalent statistics course) and junior standing

This course will provide the marketing student with a systematic and objective approach to the search for and analysis of information relevant to the identification and solution of marketing problems.

MKT 304-3 Managerial Communications (3 + 0)

Prerequisites: ENG 102 and junior standing

The various forms of managerial communications within a business environment are studied. Emphasis is placed on interpersonal and written forms of communication with internal and external audiences of a business. Students will be expected to apply the principles learned to written and oral presentation assignments. This course is required for the business core, but may not be used to satisfy requirements for the marketing major or minor.

MKT 305-3 Business Research and Report Writing (3 + 0)

Prerequisite: Junior standing

Proper techniques of conducting primary and secondary research. Organization, preparation, and interpretation of data from both descriptive and experimental research designs for informational, examinational, and analytical reports used in business. This course may not be used to satisfy requirements for the marketing major or minor.

MKT 310-3 Retail Marketing (3 + 0)

Prerequisites: MKT 300 and junior standing

This course will familiarize the student with fundamental retailing concepts and practices. Emphasis will be given to a strategic planning approach for developing and managing the retail marketing mix.

MKT 311-3 Advertising (3 + 0)

Prerequisites: MKT 300 and junior standing

The principles of advertising are covered in this course from a business planning framework. The course surveys the advertising field from the marketing-advertising planning framework, discusses the targeting of advertising, types of media, media planning and buying, creative planning and the basic creative formats for each medium. Evaluation of advertising and producing efficient ads are discussed.

MKT 312-3 Promotional Strategy (3 + 0)

Prerequisites: MKT 300, MKT 311, and junior standing

Following the Principles of Advertising, MKT 311, this course provides an in-depth understanding and analysis of promotional strategies and tactics necessary in the management of marketing communications. Students design and execute actual advertising, sales promotion and publicity plans.

MKT 314-3 Foundations of Direct Marketing (3 + 0)

Prerequisites: MKT 300 and junior standing

This course will examine the concepts, strategies, and applications involved in direct marketing. Topics include the scope of direct marketing, launching direct marketing programs, planning and market segmentation, developing and managing products and services, promotion and multi-media plans, customer service and response, and performance measures.

MKT 316-3 Sales Management (3 + 0)

Prerequisites: MKT 300 and junior standing

This course will provide students with a comprehensive study of problems involved in managing a sales force. Areas covered include organizations, motivation, and performance evaluation. Case analysis is emphasized.

MKT 323-3 Listening and Logic (3 + 0)

Prerequisites: Permission of instructor and junior standing

This course increases comprehension and retention through analysis of listening difficulties, idea identification, emotions, and fallacies of reasoning. Stresses right brain/left brain, communication style, lifestyle, nonverbal behavior, and empathic listening. Primary emphasis is on individual growth. This course may not be used to satisfy major and minor requirements.

MKT 330-3 Marketing of Services (3 + 0)

Prerequisites: MKT 300 and junior standing

This course will introduce students to the problems and issues that are unique to marketing a service. Current literature related to services marketing will be reviewed. Students will learn how to develop strategies to service firms.

MKT 331-3 Consumer Behavior (3 + 0)

Prerequisites: MKT 300 and junior standing

This course analyzes the underlying theories and complex variables influencing consumers and their purchase decision making processes. Marketing strategy implications of consumer behavior concepts are offered.

MKT 341-3 Physical Distribution and Transportation (3 + 0)

Prerequisites: MKT 300 and junior standing

This course focuses on the task of physical distribution 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 physical distribution operation. The evolution of marketing channels and their relationship to physical distribution and the marketing process is also covered in this course.

MKT 361-3 Business-to-Business Marketing (3 + 0)

Prerequisites: MKT 300 and junior 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 371-3 International Marketing (3 + 0)

Prerequisites: MKT 300 and junior standing

Introduces the student to the fundamentals of international scope and complexities of marketing; unique marketing aspects of global enterprise opportunities.

MKT 456-3 Marketing Management (3 + 0)

Prerequisites: MKT 300, MKT 301, and MKT 331 and senior standing

This is a senior level marketing course which 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. Lotus 1-2-3 and computer models are utilized.

Mathematical Sciences

Computer Science courses are listed under the prefix CSI and are offered through the Department of Mathematical Sciences.

MTH 108-3 Mathematical Modes of Thought (3 + 0)

Prerequisite: One year of high school algebra or the equivalent and an appropriate score on the mathematics preassessment placement test

An introduction to the methods of mathematics for nontechnical students. The course deals with problem-solving strategies, statistical reasoning, and the nature of mathematics in the curriculum. (General Studies Course - Level I, Mathematics)

MTH 111-4 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 mathematics preassessment placement test.

The topics which are covered include equations and inequalities, functions and graphs, exponents and logarithms, and sequences and the binomial theorem. Basic algebraic skills are essential as a prerequisite to this course. (General Studies Course - Level I, Mathematics)

MTH 112-3 College Trigonometry (3 + 0)

Prerequisite: MTH 111 or equivalent

Topics covered include trigonometric functions, equations and identities; solution of triangles, and complex numbers.

MTH 121-4 Introduction to Statistics (4 + 0)

Prerequisites: Two years of high school algebra or equivalent and an appropriate score on the mathematics preassessment placement test

Introduction to the principles and techniques of descriptive statistics, probability, and statistical inference (estimation and tests of hypotheses). Students will work with data and problems related to their own interest or field of study. Students will not receive credit for this course and Math 123. One or the other, but not both, will be counted for credit. (General Studies Course - Level I, Mathematics)

MTH 123-2 Statistics for Human Services (2 + 0)

Prerequisite: One year of high school algebra or equivalent

This course introduces the principles and techniques of descriptive statistics, probability distributions and elementary estimation and inferences. Students will work on a problem and data related to their field of study.

MTH 131-4 Finite Mathematics for the Management and Social Sciences (4 + 0)

Prerequisite: One and one-half years of high school algebra or equivalent and an appropriate score on the mathematics preassessment placement test.

This course stresses application in business and the social sciences. Topics covered include evaluation and graphing of functions, geometry of straight lines, operations on matrices, solving systems of equations, and an introduction to set theory and probability theory. (General Studies Course - Level I, Mathematics)

MTH 132-3 Calculus for the Management and Social Sciences (3 + 0)

Prerequisite: MTH 131, or MTH 111, or MTH 140

An introduction to calculus for applications in business and social sciences. Topics include differentiation, partial differentiation, indefinite and definite integration.

MTH 140-4 Pre-Calculus Mathematics (4 + 0)

Prerequisites: This course is designed for students who have had some exposure to college algebra and trigonometry and need a review of precalculus material

This is a course covering the essentials of the algebraic and graphical properties of the polynomial, rational, exponential, logarithmic, and trigonometric functions. Designed to prepare students for MTH 141, Calculus I.

MTH 141-4 Calculus I (4 + 0)

Prerequisites: MTH 111 and MTH 112, or MTH 140

A first course in calculus for science and engineering. Topics include derivatives of polynomials and trigonometric functions; applications of the derivative; the definite integral; the fundamental theorem of calculus; applications of integration.

MTH 151-4 Computer Programming: FORTRAN (4 + 0)

Prerequisite: MTH 112 or MTH 140 or equivalent

A first course in computer programming for students in mathematics, science, or engineering, using the FORTRAN language. Introduction to computer applications, use of computer terminals, flow charting, program design, testing and debugging. Program-writing projects are assigned to be run on the computer.

MTH 161-4 Mathematical Concepts for Teachers in Pre-secondary Schools (4 + 0)

Prerequisite: One and one-half years of high school algebra or equivalent and an appropriate score on the mathematics preassessment test.

This course is designed to develop a sound background in the concepts underlying the presecondary mathematics curriculum. (General Studies Course - Level I, Mathematics)

MTH 214-2 Matrix Algebra (2 + 0)

Prerequisite: MTH 112 or MTH 140 or equivalent

Introduction to matrix notation, operations on matrices, determinants and solution of linear systems; applications of matrices in the natural and social sciences and business.

MTH 241-4 Calculus II (4 + 0)

Prerequisite: MTH 141 or permission of instructor

A second course in calculus continuing MTH 141. Topics include exponential and logarithmic functions, antiderivatives, applications of the integral, and infinite series including Taylor's Series.

Course Descriptions

MTH 242-4 Calculus III (4 + 0)

Prerequisite: MTH 241 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.

MTH 310-3 Introduction to Mathematical Proofs (3 + 0)

Prerequisite: MTH 241 or permission of instructor

A course 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 311-3 Abstract Algebra I (3 + 0)

Prerequisite: MTH 310 or permission of instructor

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 314-4 Linear Algebra (4 + 0)

Prerequisite: MTH 310 or permission of instructor

An introduction to the theory and application of vector spaces, linear transformations, matrix representations, eigenvalues and eigenvectors.

MTH 320-3 Biostatistics (3 + 0)

Prerequisite: MTH 111 or equivalent or permission of instructor

Application of statistics to the biological and health sciences. Topics include descriptive statistics, statistical inference, and methods.

MTH 321-4 Probability and Statistics (4 + 0)

Prerequisite: MTH 241 or permission of instructor

Application and theory of the principles of probability and statistics in the sciences and engineering. Topics include random variables, probability distributions, sampling, estimation and tests of hypotheses.

MTH 322-4 Design of Experiments (4 + 0)

Prerequisite: MTH 321 or permission of instructor

Application and theory of statistical methods in the sciences and engineering. Topics include regression and correlation, analysis of variance, and factorial experiments.

MTH 325-4 Optimization Techniques I (4 + 0)

Prerequisite: MTH 214 or permission of instructor

Introduction to the mathematical programming techniques of operations research. Topics include linear programming, network analysis, dynamic programming and game theory.

MTH 326-4 Optimization Techniques II (4 + 0)

Prerequisites: MTH 141 and MTH 214 or permission of instructor

A study of mathematical planning techniques and probabilistic techniques of operations research. Topics selected from: simulation theory, decision theory, inventory theory, Markov chains, queueing theory, nonlinear programming, geometric programming and economic analysis.

MTH 342-4 Differential Equations (4 + 0)

Prerequisite: MTH 242 or permission of instructor

A study of first, second, and higher order equations and systems, series methods, approximations, and applications in science and engineering.

MTH 344-3 Partial Differential Equations (3 + 0)

Prerequisite: MTH 342 or permission of instructor

A course in partial differential equations and their solutions with applications to the heat equation and the wave equation. Topics include separation of variables techniques and Fourier series.

MTH 347-3 Applied Combinatorial Mathematics (3 + 0)

Prerequisite: MTH 242 or permission of instructor

A problem-solving course. Applied topics including, but not limited to, enumeration, graph theory, block designs, incidence relations, and difference equations.

MTH 360-3 History of Mathematics (3 + 0)

Prerequisite: MTH 310 or permission of instructor

This course is an introduction to the history of mathematics, including discussion of problems and the people who formulated and solved them. The course also investigates the impact of historical mathematics on present society.

MTH 361-3 Methods of Teaching Mathematics (3 + 0)

Prerequisites: MTH 241, EDU 321, or permission of instructor

Methods and techniques of teaching mathematics at the secondary education level.

MTH 365-3 Foundations of Geometry (3 + 0)

Prerequisite: MTH 310 or permission of instructor

This course will re-examine Euclidean geometry via Hilbert's axioms, which allows 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 370-3 Foundations of Mathematics (3 + 0)

Prerequisite: Permission of instructor

An inquiry into the nature of mathematics including an analysis of the axiomatic method as applied to logic and set theory, and consideration of several philosophical positions with respect to the way the axiomatic method can be applied. The course is especially designed for mathematics majors but can be valuable to mature students in other fields, such as philosophy and social sciences, providing insights into basic mathematical concepts.

MTH 411-3 Abstract Algebra II (3 + 0)

Prerequisite: MTH 311 or permission of instructor

A continuation of MTH 311 with emphasis on an in-depth study of the properties of the structures introduced in 311. Topics included are: Sylow theory, ideals and their properties, principal ideal domains, field extensions and finite fields.

MTH 415-3 Elementary Number Theory (3 + 0)

Prerequisite: MTH 310 or CSI 310 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 421-4 Probability Theory (4 + 0)

Prerequisite: MTH 321 or permission of instructor

Theory of discrete and continuous probability with applications in the sciences and engineering. Topics include sample spaces, combinatorial probability, random variables, sets of random variables and random sequences, expectation and special distributions.

MTH 422-4 Stochastic Processes (4 + 0)

Prerequisite: MTH 321 or permission of instructor

Introduction to random processes with applications in the sciences and engineering. Topics include examples and properties of stochastic processes, Markov processes, and queueing theory.

MTH 429-1 Senior Statistics Project (1 + 0)

Prerequisite: Senior standing

In this course, students will apply the statistical techniques covered in previous coursework to a real world situation. The students will write a report containing a description of the problem, of the statistical tools used, of the design of experiments, of the analysis, and of the results of the study.

MTH 441-3 Advanced Calculus I (3 + 0)

Prerequisites: MTH 242 and MTH 310 or permission of instructor

The first course of a two-semester sequence which includes a treatment of calculus with emphasis on proofs of theorems. Topics selected from: structure of the real number system, infinite series, vector calculus, applications of partial differentiation and function theory.

MTH 442-3 Advanced Calculus II (3 + 0)

Prerequisite: MTH 441 or permission of instructor

Continuation of MTH 441.

MTH 445-3 Complex Variables (3 + 0)

Prerequisite: MTH 242 or permission of instructor

Introduction to complex numbers, analytic functions, conformal mapping, contour integrals, and residues and poles. Applications selected from topics of current interest (e.g. thermodynamics, electrostatics, hydrodynamics, etc.)

MTH 448-3 Numerical Analysis I (3 + 0)

Prerequisites: MTH 151 and MTH 241 or permission of instructor

Computational methods for solving algebraic, transcendental, ordinary and partial differential, finite difference, and integral equations. Development of various algorithms, and discussion of interpolation, approximation and least squares curve fitting.

MTH 449-3 Numerical Analysis II (3 + 0)

Prerequisites: MTH 342 and MTH 448 or permission of instructor
Continuation of MTH 448.

MTH 459-1 Applied Mathematics Senior Seminar (1 + 0)

Prerequisite: Senior Status

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 466-3 Topology (3 + 0)

Prerequisite: MTH 310 or permission of instructor

Topics include topological spaces, functions, mappings and homeomorphisms, continuity, compactness, and metric spaces.

Mechanical Engineering Technology**MET 100-3 Materials and Manufacturing Technology (3 + 0)**

Introductory survey course in manufacturing production processes including a study of primary materials and manufacturing processes in the fabrication of industrial products. It relates these to current national, social, industrial, and international issues and problems.

MET 101-3 Manufacturing Processes (2 + 2)

Basic fundamentals in the operation of machine tools. This includes measuring tools, benchwork and layout, and tool grinding. The student performs various machining operations using the engine lathe, milling machine, drills, and surface grinders.

MET 131-3 Principles of Quality Assurance (3 + 0)

Prerequisite: Intermediate algebra or equivalent

Defines the scope and function of quality assurance, including basic definitions, quality policy and objectives, manuals and procedures, concept of variation, inspection techniques, metrology, acceptance sampling, process control, customer relations, and product audit.

MET 220-3 Materials of Engineering (2 + 2)

Prerequisites: CHE 110 or 120 (can be concurrent); MTH 111 or MTH 140

This lecture/laboratory course deals with basic properties of metals and non-metals, and functions which govern their selection and design. Materials covered include ferrous and non-ferrous metals, plastics, ceramics, glass, wood, rubber, and adhesives.

MET 221-3 Mechanical Drawing (2 + 2)

Prerequisite: CEN 120 or comparable training or experience

Representation of mechanical components, dimensioning, and tolerancing are worked. The student is also introduced to fluid power diagrams, piping and electrical and electronic diagrams.

MET 222-3 Computer Aided Drafting for Engineering Technology (1 + 4)

Prerequisite: MET 221 or permission of instructor

Students will work with a computerized engineering graphics system and will learn to produce, place and edit lines, arcs, points, and polygons. The students will also produce tests, dimensions, inserts, sectioning, and hard copies.

MET 231-3 Quality Assurance Stat Methods (3 + 0)

Prerequisites: MET 131 and MTH 121

An emphasis on statistical analysis using fundamental statistical concepts, the use of the theory of probability, the aspects of specifications and tolerances, the concepts of sampling aspects of life testing, and some cost aspects of quality decisions.

MET 240-3 Welding Processes (2 + 2)

Prerequisites: MET 101, 220

A basic course to acquaint students with the common welding processes. These include fusion welding with the oxyacetylene and arc processes, brazing of ferrous and non-ferrous metals, oxyacetylene cutting, and introduction to inert gas welding. Provides a technological understanding of advanced welding techniques used in industry.

MET 300-4 Manufacturing Analysis (4 + 0)

Prerequisites: MET 101, MET 131, MTH 111 or MTH 140

Presents techniques for solving common manufacturing problems like forecasting, scheduling, load balancing, choice of equipment, allocation of resources, and human factors.

MET 301-3 Fluid Flow I (2 + 2)

Prerequisites: PHY 202 and MTH 112 or MTH 140

It is an introduction to fluid mechanics with basic definitions developed. Fluid statistics using Pascal's principle are treated. The continuity equation is used for steady and unsteady flow with emphasis given to one-dimensional, incompressible flow applications. Laboratory work includes measuring pressure drop, flow profiles, flowrates, etc., using hydraulic systems.

MET 302-3 Fluid Flow II (2 + 2)

Prerequisites: MET 301 and MET 311

Compressible flow is studied for convergent-divergent nozzles and pipe flow. Fluidics is introduced and dimensional analysis is treated with regard to geometric and kinematic similarity. The laboratory work supports the classroom studies using various gas flow systems.

MET 305-3 Heat Power (2 + 2)

Prerequisites: MTH 141, PHY 201

This energy conversion course combines lecture and laboratory for the manufacturing and industrial student. Emphasis is given to real processes, compression, expansion, and heat transfer, and to safety and efficiency of engines (stationary and mobile).

MET 307-3 Machine Design (2 + 2)

Prerequisites: CEN 313 and MET 220, 221

The art of planning and devising new or improved machines to accomplish specific purposes is studied. The student is introduced to the fundamental principles required to correctly design the separate elements which compose the machine. The economics of design are stressed along with strength and safety considerations.

MET 310-3 N/C Computer Programming (2 + 2)

Prerequisites: MET 101, 221 and MTH 112

Theory and application of computer aided N/C language with programming emphasis on APT, Compact II, and suitable post processors.

MET 311-3 Thermodynamics I (3 + 0)

Prerequisites: MTH 141 and PHY 201

The fundamental laws of thermodynamics are studied. Basic concepts of energy, the thermodynamic system, dimensions and units, and the ideal-gas equation of state are treated. Closed and open systems are studied. Heat engines are introduced. Reversible and irreversible processes are investigated.

MET 312-2 Heat Transfer (2 + 0)

Prerequisites: PHY 202 and MTH 151 (or equivalent)

The three basic mechanisms of heat transmission are studied analytically and experimentally. Heat conduction and convection (free and forced) plus radiant (solar) are treated for both steady-state and transient understandings. The transient study is aided by computer solutions.

MET 314-1 Heat Transfer Laboratory (0 + 2)

Prerequisite: MET 312 (concurrent enrollment preferred)

The laboratory course provides hands-on experience. Conduction and convection experiments are conducted. The student selects and installs thermocouples, calibrates equipment, records transient and steady data, analyzes results and reports findings.

MET 325-3 Tool Design and Production Tooling (2 + 2)

Prerequisites: MET 220, 221, MTH 112

Drawing analysis for tooling requirements and tooling cost estimates. Design of tooling for turret lathes, automatic screw machines, multiple spindle lathes and production milling machines.

MET 330-3 Statistical Process Control (3 + 0)

Prerequisites: MET 131 and 300

This course focuses on statistical process control with emphasis on process capability, troubleshooting, analysis of variance and hypothesis testing.

MET 331-3 Thermodynamics II (2 + 2)

Prerequisites: MET 311 and MTH 241

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 analyses, nozzles and internal combustion engine tests.

Course Descriptions

MET 332-3 Instrumentation Laboratory (2 + 2)

Prerequisite: MET 301

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 333-3 Robotics for Manufacturing (2 + 2)

Prerequisites: MET 310 and EET 200

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.

MET 341-3 Geometric Dimensioning and Tolerancing (2 + 2)

Prerequisites: MET 131, MET 221

Dimensioning practices used by major U.S. Metal Product Design Agencies are studied. Tolerance of form, tolerances of position, datums, concentricity, symmetry and functional gaging concepts are also treated.

MET 351-3 Technical Supervision (3 + 0)

Prerequisite: Junior, senior standing

The tasks, responsibilities, skills and problems of first line supervision in industry. Course will utilize case histories. Identification of interface requirements for successful communications and operations between engineers, technicians and management. Provides basic management tools to develop competence in the ability to handle people. Enhances job satisfaction through job competency skill development.

MET 400-3 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 401-3 Advanced Manufacturing Technology (3 + 0)

Prerequisites: MET 300, MET 333, EET 200

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.

MET 404-3 Plant Layout (2 + 2)

Prerequisites: MET 221 and MET 300

Basic principles of plant layout to meet production needs. Application of materials handling devices to the process. Selection and arrangement of production machinery, product and process layout schemes, techniques of making layouts, and balance and flexibility of operations. Management's role is discussed.

MET 407-3 Computer Aided Design (2 + 2)

Prerequisites: MET 307 and MTH 151

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.

MET 408-3 Computer Aided Manufacturing (2 + 2)

Prerequisites: MET 300, 310, MTH 151

Computer applications in configuration control, purchasing, vendor ratings, production control, inventory control and final product acceptance documentation are treated.

MET 424-3 Cost Estimating for Manufacturing (3 + 0)

Prerequisites: MET 300, and MTH 151

Manufacturing costs, types of estimates, computer applications to cost estimating, cost estimating controls and cost estimating procedures are studied. ASME approach to realistic cost estimating.

MET 428-3 Advanced Energy Technology (2 + 2)

Prerequisites: MET 312, PHY 201, PHY 202

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 448-3 Air Conditioning/Refrigeration (3 + 0)

Prerequisite: MET 312

Refrigeration cycles are studied. Operation and rating of system components are evaluated with heat flow in condensers, evaporators and cooling towers treated. Control of temperature and humidity along with air handling equipment, ducting, etc., are studied.

Meteorology

MTR 140-3 Introduction to Meteorology (3 + 0)

Prerequisite: Minimum performance standard scores on reading, writing, and mathematics preassessment placement tests

Introductory course in composition, structure and behavior of the atmosphere. This course includes high and low pressure systems, air masses, fronts, clouds and precipitation, local wind systems and tropical storms. (General Studies Course - Level II, Natural Sciences)

MTR 141-2 Aerospace Meteorology (2 + 0)

Basic meteorological concepts as applied to aerospace are developed. Emphasis on the use of national weather service reports and forecasts which support aviation. Prepares students for FAA private and commercial pilot's written examination.

MTR 142-1 Introduction to Meteorology Lab (0 + 2)

Corequisites: MTR 140 to be taken concurrently and after successful completion of Level I mathematics requirement

This course introduces weather analysis and forecasting. Students will be introduced to basic concepts of atmospheric behavior and the maps and codes used in analysis. Lab exercises will be performed with surface maps, upper air maps, simple thermodynamic diagrams, and weather instruments.

MTR 241-3 Meteorological Instrumentation (3 + 0)

Prerequisite: MTR 140 or MTR 141

This course acquaints the student with various types of meteorological instrumentation used in both operations and research field work. The theory of instrument measurement and the operating principles behind the more common instrument systems will be discussed in detail. The systems include ground based, airborne and remote sensing instruments.

MTR 242-3 Use of Radar and Satellites in Meteorology (3 + 0)

Prerequisite: MTR 140 or MTR 142

This course covers the basic theory of meteorological radars and satellites. The types of radars and satellites utilized in meteorology will be examined and their uses discussed.

MTR 340-4 Synoptic Meteorology I (3 + 2)

Prerequisites: MTR 140 and 142

This is a descriptive course in the 3-dimensional structure of global, synoptic, and regional scale weather systems with an emphasis on upper air dynamics, stability, pressure, wind, temperature, clouds, and precipitation. Extensive use is made of synoptic weather maps, teletype codes, and thermodynamic diagrams. Weather forecasting fundamentals are introduced.

MTR 341-4 Synoptic Meteorology II (3 + 2)

Prerequisite: MTR 340

A continuation of MTR 340 Synoptic Meteorology I with emphasis on regional scale weather systems such as snowstorms, windstorms, and thunderstorms. Daily weather maps are used to analyze and understand current weather. Principles of weather forecasting are studied.

MTR 343-3 Dynamic Meteorology I (3 + 0)

Prerequisites: MTH 141, PHY 231 and 232, and MTR 341

This course provides a calculus based examination of the thermodynamics of dry and moist air and how it applies to meteorology. Atmospheric stability, thermodynamic diagrams, and convection are mathematically examined.

MTR 344-3 Physical Meteorology (3 + 0)

Prerequisite: MTR 343 and CHE 120

This course is a calculus based examination of atmospheric radiation including the global energy budgets, basic radiation laws, absorption process,

radiative transfer, and the meteorological implication of radiation. A calculus based examination of cloud particle formation, precipitation processes, weather modification, and cloud physics applications are all presented.

MTR 345-3 Dynamic Meteorology II (3 + 0)

Prerequisites: PHY 233 and 234, MTH 241, and MTR 343

This course focuses on the development and study of the laws of conservation of mass, momentum, and energy as they apply to middle latitude synoptic scale weather systems.

MTR 346-3 Meteorology and Flight Operations (3 + 0)

Prerequisites: MTR 141 and junior status or permission of instructor

The application of meteorological principles to aviation operations. Concentrates upon stability and turbulence, clear-air turbulence, aircraft icing problems, jet-stream weather and airborne radar.

MTR 350-3 Hazardous Weather (3 + 0)

Prerequisites: MTR 140 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 Course - Level II, Natural Sciences*)

MTR 371-3-6 Meteorological Cooperative Education I (0 + 9-18)

Prerequisite: Employment in a cooperative education position in meteorology

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 372-3-6 Meteorological Cooperative Education II (0 + 9-18)

Prerequisites: Employment in a meteorological cooperative education position, and MTR 371

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 373-3 Meteorological Cooperative Education III (0 + 9)

Prerequisites: Employment in a meteorological cooperative education position, and MTR 372

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 400-3 Meteorological Numerical Methods (3 + 0)

Prerequisites: MTH 121, MTH 151, MTR 344

The numerical methods used in meteorology to process data, to calculate parameters and to solve nonanalytical problems are studied.

MTR 421-1 Forecasting Laboratory I (0 + 2)

Prerequisite: MTR 340

This is a laboratory course in which teams of students will prepare daily weather forecasts for Colorado and the Denver area using the current weather maps and coded data.

MTR 422-1 Forecasting Laboratory II (0 + 2)

Prerequisite: MTR 341

This is a laboratory course in which teams of students will prepare daily weather forecasts for Colorado and the Denver area using the current weather maps and coded data.

MTR 423-1 Forecasting Laboratory III (0 + 2)

Prerequisite: MTR 340

This is a laboratory course in which teams of students will prepare daily weather forecasts for Colorado and the Denver area using the current weather maps and coded data.

MTR 424-1 Forecasting Laboratory IV (0 + 2)

Prerequisite: MTR 340

This is a laboratory course in which teams of students will prepare daily weather forecasts for Colorado and the Denver area using the current weather maps and coded data.

MTR 441-3 Numerical Weather Prediction (3 + 0)

Prerequisites: MTR 345 and MTH 151

This course presents a mathematical and qualitative examination of quasi-geostrophic theory and its application to the numerical modeling of the atmosphere. The theory behind current primitive equation models and finite difference techniques will be applied to a simple computer model of the atmosphere developed during the class.

MTR 442-3 Industrial Meteorology (3 + 0)

Prerequisite: MTR 345

Interaction between urban and industrial complexes and the atmosphere. Emphasizes composition and behavior of industrial air pollution sources, effects of air pollution and control techniques.

MTR 443-2 Meteorology and Media (1 + 2)

Prerequisite: MTR 341

The student will develop analysis and forecast products for daily briefings, newspaper reports, radio and television presentations. Included are public needs and problems associated with each type of media presentation.

MTR 444-3 Climatology (3 + 0)

Prerequisite: MTR 341

Climatology examines the characteristics, distributions, and causes of global and regional climate. It builds upon a sound physical understanding of energy transport processes in the atmosphere and oceans. These processes are the basis for the study of climate change.

MTR 445-1 Consulting Meteorology (1 + 0)

Prerequisite: MTR 341 or permission of instructor

This course provides a study of the role of the private consultant meteorologist and meteorological companies including specialized meteorological services, forensic meteorology, and consultant-client relationships.

MTR 450-3 Mesometeorology and Forecasting (2 + 2)

Prerequisites: MTR 341 and 421

An advanced course in recognizing, understanding, and forecasting mesoscale phenomena (severe thunderstorms, tornadoes, hailstorms, flash floods, windstorms, snowstorms, etc.) with emphasis on theory, analysis of weather data, and forecast decision making.

Military Science (Army ROTC)

MIS 101-2 Introduction to Military Science I (1 + 2)

An introductory course which presents the basic makeup of the U. S. Army, the special duties and responsibilities inherent in acceptance of a commission, and basic military skills.

MIS 102-2 Introduction to Military Science II (1 + 2)

Prerequisite: MIS 101 unless waived by the instructor

This course continues the development of basic knowledge and skills of military subjects begun in MIS 101.

MIS 201-3 Introduction to Leadership and Management I (2 + 2)

Course continues development of student's basic military skills while examining the role of the leader in formal and informal organizations. Individual motivation, attitude formation, socialization, and interpersonal communications are also covered.

MIS 202-3 Introduction to Leadership and Management II (2 + 2)

Prerequisite: Completion of MIS 201 or instructor approval

This course develops basic management skills in the context of the military organization while refining basic military skills necessary to enter upper division Military Science courses.

Course Descriptions

MIS 203-4 Accelerated Basic Military Science I (3 + 2)

Prerequisites: Sophomore standing and permission of instructor

This course is designed to qualify sophomores who did not complete MIS 101 and 102 as freshmen for the ROTC Advanced Program. It provides basic foundations in leadership, organization, defense policy, military theory, and individual military skills.

MIS 204-4 Accelerated Basic Military Science II (3 + 2)

Prerequisites: MIS 203 and permission of instructor

This is a continuation of MIS 203. It is specifically designed to qualify sophomores who did not attend MIS 101 and 102 as freshmen for upper division Military Science courses.

MIS 301-3 Control Aspects of Small Unit Operations I (2 + 2)

Prerequisite: Permission of instructor

Emphasis is on preparation for the ROTC Summer Advanced Camp. Instruction focuses on the organization, planning, communication, and supervision of small unit tactical operations. The laboratory stresses application of classroom materials and physical conditioning.

MIS 302-4 Control Aspects of Small Unit Operations II (2 + 2 + 80 hours field training exercise)

Prerequisites: MIS 301, 303 and permission of instructor

Designed to provide the student with an extensive exposure to advanced camp subject matter. Classroom and field training exercises are used to expose the student to small unit tactics, communications, military skills, and practical leadership experience.

MIS 305-5 Summer Practicum (0 + 10)

Prerequisite: Completion of MIS 301 and MIS 302

The primary purpose of the camp is to provide the ROTC cadet with the field experience and knowledge required to develop the managerial and leadership skills essential to the commissioned officer.

MIS 401-3 Seminar in Officer Development I (2 + 2)

Prerequisites: Permission of instructor and successful completion of the Army's enrollment eligibility criteria

This course serves as the first half of the capstone training for the ROTC pre-commissioning program. It stresses command/staff principles and functions, training management, and leadership. A practical exercise laboratory is included.

MIS 402-3 Seminar in Officer Development II (2 + 2)

Prerequisites: Permission of instructor and successful completion of the Army's enrollment eligibility criteria

This course is a continuation of MIS 401. In addition to continued emphasis on previous subject matter, the student is introduced to military law. The student applies classroom material to actual situations during the laboratory.

Modern Languages

MDL 130-2 Languages for the Professionals (2 + 0)

To afford the students a practical knowledge of a foreign language (Spanish, German, French, etc.) in order to facilitate communication and to provide understanding in a specific professional field. May be repeated for credit as the course title changes.

MDL 170-2 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 496-3 Teaching Foreign Languages in the Secondary Schools (3 + 0)

Prerequisites: EDU 321 plus 9 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.

Music

MUS 100-3 Introduction to Music (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

This course is nontechnical in nature and designed for students who are not music majors to develop competence in understanding music through guided listening. The elements and sources of music are studied, discussed and demonstrated. (*General Studies Course - Level II, Arts and Letters*)

MUS 101-3 Fundamentals of Music Theory (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

The study of the basic principles of musical notation and structure as they relate to scales, keys, intervals, triads, rhythm and meter. Designed for non-Music majors and Music majors with insufficient experience to qualify for Music Theory I. No previous training in music is required. (*General Studies Course - Level II, Arts and Letters*)

MUS 102-3 Basic Music Theory Skills (3 + 0)

Prerequisite: MUS 101 or a passing score on the Basic Music Theory Skills Placement Examination

Designed to develop music-reading and related aural skills through practice and application of fundamental sight-reading techniques and ear-training procedures and to prepare music students in skills needed for entrance into Music Theory I (MUS 111).

MUS 111-3 Music Theory I (3 + 0)

Prerequisite: MUS 102, or a passing score on Music Theory I Placement Examination

Corequisite: MUS 112

The study of the melodic, harmonic, rhythmic, textural, and formal elements of music through analysis and composition. The development of reading and hearing skills as they relate to these elements. Covers diatonic music based on the triad.

MUS 112-1 Music Theory Lab I (0 + 2)

Prerequisite: MUS 102 or a passing score on Music Theory I Placement Examination

Corequisite: MUS 111

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 113-3 Music Theory II (3 + 0)

Prerequisites: MUS 111, 112

Corequisite: MUS 114

Continuation of MUS 111. Covers diatonic seventh chords and elementary chromaticism.

MUS 114-1 Music Theory Lab II (0 + 2)

Prerequisites: MUS 111, 112

Corequisite: MUS 113

Continuation of MUS 112. Covers diatonic seventh chords and elementary chromaticism.

MUS 121-3 Music Literature I (3 + 0)

Prerequisite: MUS 101 or permission of instructor

The study of musical forms, musical terminology, composers and musical styles of the Middle Ages, Renaissance and Baroque periods.

MUS 122-3 Music Literature II (3 + 0)

Prerequisite: MUS 121 or permission of instructor

The study of musical forms, musical terminology, composers and musical styles of the Classical and Romantic periods and the Twentieth Century.

MUS 141-2 German Diction and Literature for Singers (2 + 0)

An in-depth study of the sound of the German language using audio-lingual techniques. Texts of the standard German art song literature will be used as the basis of the course. Five songs must be prepared and performed in class during the semester.

MUS 142-2 French Diction and Literature for Singers (2 + 0)

An in-depth study of the sound of the French language using audio-lingual techniques. Texts of the standard French art song literature will be used as the basis of the course. Five songs must be prepared and performed in class during the semester.

MUS 143-2 Italian Diction and Literature for Singers (2 + 0)

An in-depth study of the sound of the Italian language using audio-lingual techniques. Texts of the standard Italian art song literature will be used as the basis of the course. Five songs must be prepared and performed in class during the semester.

MUS 161-1 Class Instruction I (1 + 0)

Prerequisite: MUS 102, or a passing score on the Music Theory I Placement Examination

Class instruction in voice, piano, guitar, the standard band and orchestral instruments, improvisation or score reading. Designed for students with little or no previous training in the area being studied. May be repeated for credit in a different area of study.

MUS 162-1 Class Instruction II (1 + 0)

Prerequisite: MUS 161

Continuation of MUS 161. May be repeated for credit in a different area of study.

MUS 171-2 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

Individual instruction in voice, piano, organ, guitar, the standard band and orchestral instruments or composition. At the end of the semester, the student must perform before a faculty jury committee. May be repeated for credit in a different area of study.

MUS 172-2 Private Instruction II (1 + 0 + 0.5)

Prerequisite: MUS 171

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 171. May be repeated for credit in a different area of study.

MUS 201-3 Topics in Ethnic Music: Variable Title (3 + 0)

A course designed to study a single type of ethnic music. May be repeated for credit under a different title.

MUS 202-2 Jazz History (2 + 0)

To help develop individuals, through the study of jazz, who will be better informed and better able to understand and appreciate the entire realm of the world of music.

MUS 211-3 Music Theory III (3 + 0)

Prerequisites: MUS 113, 114

Corequisite: MUS 212

The study of advanced chromaticism leading to twentieth century techniques. Music of the late nineteenth century, impressionism, and modern schools of composition. Aural recognition of harmonic materials emphasized. Stylistic composition and analysis included.

MUS 212-1 Music Theory Lab III (0 + 2)

Prerequisites: MUS 113, 114

Corequisite: MUS 211

Practical theoretical skills applied to the keyboard. Training in sight-singing, rhythmic coordination, firm sense of pitch, and aural recognition of the materials introduced in MUS 113, Music Theory II. Keyboard realization of advanced chromatic harmony and impressionism.

MUS 261-1 Class Instruction III (1 + 0)

Prerequisite: MUS 162

Continuation of MUS 162. May be repeated for credit in a different area of study.

MUS 262-1 Class Instruction IV (1 + 0)

Prerequisite: MUS 261

Continuation of MUS 261. May be repeated for credit in a different area of study.

MUS 271-2 Private Instruction III (1 + 0 + 0.5)

Prerequisite: MUS 172

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 172. May be repeated for credit in a different area of study.

MUS 272-2 Private Instruction IV (0.5 + 1)

Prerequisite: MUS 271

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 271. May be repeated for credit in a different area of study.

MUS 273-4 Performance III (1 + 0 + 1)

Prerequisites: MUS 172, 111, 112 and successful performance concentration audition

Corequisite: At least one other music course, and the major ensemble in the private instruction area being studied

Continuation of Music 172. For students concentrating in performance only. May be repeated for credit in a different area of study.

MUS 274-4 Performance IV (1 + 0 + 1)

Prerequisite: MUS 273 and successful performance concentration audition

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of Music 273. For students concentrating in performance only. May be repeated for credit in a different area of study.

MUS 281-2 Large Ensemble (1 + 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 282-1 Small Ensemble (0 + 2.5)

Prerequisite: Permission of instructor

Study of small ensemble literature and performance techniques. Preparation of materials for recital performance. May be repeated for credit.

MUS 304-3 Music and the Arts (3 + 0)

Prerequisites: MUS 100 or equivalent or permission of instructor; and satisfaction of General Studies Level I course requirements

This course is for Music majors as well as non-Music majors. Stylistic characteristics and the cultural climate of the important art epochs of the western world are studied. Selected examples of music, painting, sculpture, architecture and literature will be examined to discover how the various arts respond to the same socio-cultural environment and how the arts relate to each other in the pattern of cultural history. (*General Studies Course - Level II, Arts and Letters*)

MUS 310-3 Counterpoint (3 + 0)

Prerequisites: MUS 211, 212

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 313-3 Theory and Literature of Twentieth Century Music (3 + 0)

Prerequisites: MUS 211, 212

Corequisite: MUS 314

Continuation of MUS 211. More emphasis on complete structural forms, and on contemporary music techniques.

MUS 314-1 Theory and Literature of Twentieth Century Music Lab (0 + 2)

Prerequisites: MUS 211, 212

Corequisite: MUS 313

Continuation of MUS 212. Contemporary music.

MUS 315-2 Instrumental and Choral Scoring and Arranging (2 + 0)

Prerequisites: MUS 211, 212, 341, or 342, or 343 or 345 and 346

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 320-3 Topics in Music History and Literature: Variable Title (3 + 0)

Prerequisite: MUS 322 or permission of instructor

A course designed to study the history and literature of a single musical style or medium. May be repeated for credit under a different title.

Course Descriptions

MUS 321-3 Music History I (3 + 0)

Prerequisite: MUS 211

A survey of music history and musical style from the music of the early Christian church through the early eighteenth century.

MUS 322-3 Music History II (3 + 0)

Prerequisite: MUS 321

A survey of music history and musical style from mid-eighteenth century up to the present time.

MUS 323-3 Composer Series: Variable Title (3 + 0)

Prerequisite: MUS 322 or permission of instructor

A course designed to study the work of a single composer. May be repeated for credit under a different title.

MUS 324-3 Piano Literature (3 + 0)

Prerequisites: MUS 211, 212, and 322 or permission of instructor

Historical survey of piano literature from the sixteenth century to the present including solo, duet, two-piano, and concerto literature.

MUS 330-2 Fundamentals of Music Education (2 + 0)

A course designed to investigate the basic principles of music education with emphasis on the aims and objectives, history, curriculum, philosophy, and career and alternative careers in the field of music education.

MUS 331-2 Elementary School Music Methods and Materials (2 + 0)

Corequisite: MUS 339, supervised field experience: ESMMM

The course is designed for the future elementary school music specialist, or for the individuals who plan to teach music in the elementary school. Emphasis is given to contemporary teaching techniques and materials.

MUS 332-2 Secondary School Choral Methods and Materials (2 + 0)

Prerequisite: MUS 351

Corequisite: MUS 339, supervised field experience: SSCMM

Instruction and practice in the methods of teaching and techniques used in organizing and directing secondary school choral groups.

MUS 333-2 Elementary School Instrumental Music Methods and Materials (2 + 0)

Prerequisite: MUS 351

Corequisite: MUS 339, supervised field experience: ESIMMM

The study of the administration and organization of instrumental music classes at the elementary school level. Stress is placed on organizing and teaching for a well-rounded instrumental program in the public schools.

MUS 334-2 Secondary School Instrumental Music Methods and Materials (2 + 0)

Prerequisite: MUS 351

Corequisite: MUS 339, supervised field experience: SSIMMM

A study of the administration and organization of instrumental music classes at the secondary school level. Emphasis is placed on the development of organization and teaching skills required for a well-rounded instrumental music program in the secondary public schools.

MUS 335-2 General Music Methods and Materials (2 + 0)

Prerequisite: MUS 351

The course is designed for the future music teacher who will be assigned teaching responsibilities in the middle or junior high school music program. Contemporary teaching methods and materials will be emphasized.

MUS 339-1 Supervised Field Experience (0 + 2)

Corequisites: MUS 331, 332, 333, 334

This course must be taken concurrently with each of the following courses: MUS 331, 332, 333, and 334. The course is designed to provide the music student with supervised experiences working with vocal and instrumental directors in area public schools. May be repeated for credit.

MUS 341-2 String Techniques and Materials (2 + 0)

Practical instruction in the technique of playing and teaching string instruments. Lecture periods are devoted to the organization of string programs in the public schools.

MUS 342-2 Guitar Techniques and Materials (2 + 0)

Practical instruction in the technique of playing and teaching the guitar.

MUS 343-2 Woodwind Techniques and Materials (2 + 0)

Practical instruction in playing woodwind instruments with emphasis on and acquainting students with techniques and materials necessary in teaching woodwinds.

MUS 344-2 Recorder Techniques and Materials (2 + 0)

Practical instruction in playing the recorder with emphasis on and acquainting students with techniques and materials necessary in teaching the recorder.

MUS 345-2 Brass Techniques and Materials (2 + 0)

Practical beginning instruction in playing the brass instruments. Materials for beginning instrumental music in the public schools are studied.

MUS 346-2 Percussion Techniques and Materials (2 + 0)

The study of the methods and materials for teaching beginning percussion in the public schools. Includes practical instruction on the instruments.

MUS 348-2 Marching Band Techniques and Materials (2 + 0)

Prerequisite: Sophomore classification

A study of the organization and administration of the marching band in the contemporary school setting. Particular attention is paid to the "Corps Style" program, contests in the Drum Corps International format, and the traditional precision drill and pageantry formats.

MUS 349-2 Stage Band Techniques and Materials (2 + 0)

Prerequisite: Sophomore classification

A course intended to develop the skills required for teaching the various jazz performance styles in the public schools. Emphasis will be placed on the development of a knowledge of the various performance styles, jazz symbols, materials available, and the techniques of improvisation.

MUS 351-2 Basic Conducting (2 + 0)

Prerequisites: MUS 113 and 114, plus one year of MUS 281 or 381

Detailed fundamental conducting techniques of the basic patterns. Introduction to orchestral and choral scores.

MUS 365-2 Basic Techniques of Composition (2 + 0)

Prerequisite: MUS 211 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 371-2 Private Instruction V (1 + 0 + 0.5)

Prerequisite: MUS 272

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 272. May be repeated for credit in a different area of study.

MUS 372-2 Private Instruction VI (1 + 0 + 0.5)

Prerequisite: MUS 371

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 371. A 30-minute junior recital may be substituted for the jury requirement for MUS 372. May be repeated for credit in a different area of study.

MUS 373-4 Performance V (1 + 0 + 1)

Prerequisites: MUS 274, 211, 212, 321 and successful performance concentration audition

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 272. For students concentrating in performance only. May be repeated for credit in a different area of study.

MUS 374-4 Performance VI (1 + 0 + 1)

Prerequisites: MUS 373, 322 and successful performance concentration audition

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 373. For students concentrating in performance only. May be repeated for credit in a different area of study.

MUS 381-2 Large Ensemble (1 + 2.5)

Prerequisites: Junior standing and permission of instructor

Continuation of MUS 281. Also serves as a reading lab for conducting classes. May be repeated for credit.

MUS 382-1 Small Ensemble (0 + 2.5)

Prerequisites: Junior standing and permission of instructor

Continuation of MUS 282. May be repeated for credit.

MUS 411-2 Analysis of Music (2 + 0)

Prerequisites: MUS 211 and 212 and for senior experience credit, MUS 451, 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. (General Studies Course - Level III, Senior Experience)

MUS 421-2 Choral Literature (2 + 0)

Prerequisites: MUS 211 and 212

A study of the chronological and stylistic development of choral music from the sixteenth century to the present, including the discussion and study of choral forms and major composers of each period of music history.

MUS 431-2 Music Methods for Elementary School Classroom Teachers (2 + 0)

Prerequisite: Junior standing

This course will stress activities which elementary school classroom teachers can incorporate into their curriculum to develop musical concepts in the following areas: singing, listening, creative, rhythmic, instrumental, and reading.

MUS 432-2 Music Methods for Early Childhood (2 + 0)

Prerequisite: Junior standing

Methods and materials in music for the teacher of preschool through second-grade children. Concepts developed in the exploration of music; the enjoyment of music; initiation of musical competencies; and development for further learnings in music.

MUS 441-2 Piano Pedagogy (2 + 0)

Prerequisite: MUS 324 or permission of instructor

Study of methods, literature, editions, and techniques used in teaching piano privately and in groups.

MUS 442-2 Vocal Pedagogy (2 + 0)

Prerequisite: MUS 271 (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 451-2 Advanced Conducting (2 + 0)

Prerequisites: MUS 351, 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. (General Studies Course - Level III, Senior Experience)

MUS 471-2 Private Instruction VII (1 + 0 + 0.5)

Prerequisite: MUS 372

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 372. May be repeated for credit in a different area of study.

MUS 472-2 Private Instruction VIII (1 + 0 + 0.5)

Prerequisite: MUS 471

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 471. May be repeated for credit in a different area of study.

MUS 473-4 Performance VII (1 + 0 + 1)

Prerequisites: MUS 374 or 472, and successful performance concentration audition

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 374. For students concentrating in performance only. May be repeated for credit in a different area of study.

MUS 474-4 Performance VIII (1 + 0 + 1)

Prerequisite: MUS 473; for senior experience credit, the student must also complete MUS 479, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

Corequisite: At least one other music course and the major ensemble in the private instruction area being studied

Continuation of MUS 473. For students concentrating in performance only. A fifty-minute senior recital may be substituted for the jury requirement for MUS 474. May be repeated for credit. (General Studies Course - Level III, Senior Experience)

MUS 479-1 Senior Recital (1 + 0)

Prerequisites: MUS 473 and for senior experience credit, the student must also complete MUS 474, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A solo performance of not less than 50 minutes in length, required of all students concentrating in performance. Must be approved by means of a recital hearing at least three weeks prior to the performance. Graded pass-fail. (General Studies Course - Level III, Senior Experience)

Nursing**NUR 311-3 Transitions in Nursing (3 + 0)**

Prerequisite: Fulfillment of requirements for admission to the baccalaureate nursing program

A course designed to assist the transition of the associate degree and diploma R.N. graduate into the Baccalaureate Nursing Program. The student is introduced to the nursing program's philosophy and conceptual framework and general systems theory.

NUR 351-1 Nursing Diagnosis (1 + 0)

Prerequisite: NUR 311 or may be taken concurrently

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 355-3 Leadership (3 + 0)

Prerequisite: NUR 311 or may take NUR 311 concurrently if nursing entry examinations have been completed satisfactorily

Fosters development of leadership roles of the nurse working in diverse settings. Emphasis is placed on role and decision theory, group dynamics, change and future trends in nursing. Roles are examined through the theories of perception, communication, adaptation, and systems.

NUR 370-4 Assessment (3 + 2)

Prerequisite: NUR 311 or may take NUR 311 concurrently if nursing entry examinations have been completed satisfactorily

Student synthesizes prior technical skills, bio-psycho-socio-cultural knowledge with new skills to perform a physical assessment. Emphasis is on assessment of level of wellness and identification of normal from abnormal states.

NUR 385-3 Clinical Teaching Methods (3 + 0)

Prerequisite: NUR 311 or may take NUR 311 concurrently if nursing entry examinations have been completed satisfactorily

A course 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 teaching and learning, content selection, strategies, teaching materials, and evaluation of teaching are considered. The relationship of perception, communication and adaptation to teaching and learning are explored. Consideration is given to the biological, psychological, sociological and cultural needs of clients as related to client teaching. Student prepares a client-centered teaching module.

NUR 410-4 Critical Care Nursing (4 + 0)

Prerequisites: NUR 311 or may take NUR 311 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 certification examination.

Course Descriptions

NUR 420-3 Research (3 + 0)

Prerequisites: NUR 311 or may take NUR 311 concurrently if nursing entry examinations have been completed satisfactorily. Statistics may also be taken concurrently

Presents various research methodologies employed in health fields. The student synthesizes knowledge of problem solving with the interpretation, evaluation, and application of current research to specific health care areas of her/his choice. The student develops a research design for a selected problem.

NUR 440-5 Comprehensive Community Health (5 + 0)

Prerequisites: ANT 348, HES 360, HES 380, HES 382 and 16 semester hours of upper division nursing courses including NUR 370 and NUR 385. Must be taken concurrently with NUR 441

Provides the student the opportunity to operationalize the concepts/theories learned in 300 level courses in analyzing health problems of individual, family and community clients and in promoting high-level wellness. Interventions are accomplished through the nursing process with emphasis on the bio-psycho-socio-cultural components and adaptive ability of clients.

NUR 441-4 Comprehensive Community Nursing (2 + 6)

Corequisite: NUR 440

Within a community setting the student applies knowledge of perception, adaptation, communication and role theory to make multidimensional assessments of clients' levels of wellness and to plan interventions. Nursing process is stressed as a problem solving approach. Community resources are identified.

NUR 476-2 Nursing Theories (2 + 0)

Prerequisites: NUR 311, 351, 355, and 385

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 485-5 Nursing Process: Application (1.5 + 8)

Prerequisites: All 300 level nursing courses, NUR 420, NUR 440, NUR 441, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

Program concepts and theoretical formulations are operationalized in application of the nursing process in studying a self-selected client health problem in a nursing situation. The student spends one and one-half hours per week in seminar and eight hours per week in a clinical setting. (*General Studies Course - Level III, Senior Experience*)

NUR 486-5 Introduction to Primary Health Care-ADULT/GERIATRIC (5 + 0)

Prerequisites: Baccalaureate graduate nurse (BSN) or MSCD Baccalaureate Program student having taken NUR 311, 321, 351, 355, and 385

A course designed to introduce the adult/geriatric practitioner student to primary health care delivery utilizing a holistic approach. Emphasis is placed on promotion of optimal wellness, prevention of illness and disability from adulthood through old age. Also included is an introduction to health restoration during acute and chronic illness.

NUR 488-5 Primary Health Care Management: ADULT/GERIATRIC (5 + 0)

Prerequisites: HES 380, NUR 375 and 486

Prepares the nurse to assume a primary care role in health care for the adult and geriatric client. Emphasis is on the bio-psycho-socio-cultural components of individuals, aspects of health and illness and management of acute and chronic illness in the adult/geriatric client.

NUR 491-12 Primary Health Care Management: Application-ADULT/GERIATRIC (0 + 30)

Corequisite: NUR 488

Student operationalizes concepts acquired in NUR 488. Emphasis is on the management of acute and chronic health care problems in the adult/geriatric client. Student practices 30 hours a week in a supervised clinical setting.

NUR 495-5 Introduction to Primary Health Care (5 + 0)

Prerequisites: NUR 355, NUR 420 and NUR 385, or bachelor of science degree in Nursing

A course designed to introduce the student to primary health care. Emphasis is placed on the prevention of illness and disability and the maintenance and promotion of health. Introduction is made to health restoration during acute and chronic illness.

NUR 496-5 Primary Health Care Management (5 + 0)

Prerequisites: HES 380, NUR 375 and NUR 495

A course designed to prepare the nurse to assume the role of a primary health care provider for families. Emphasis is placed on health restoration during acute and chronic illness.

NUR 497-12 Primary Health Care Management: Application (2 + 30)

Corequisite: Concurrently with NUR 496

Student operationalizes concepts acquired in NUR 496-5. Emphasis is placed on the prevention of illness and disability, maintenance and promotion of health, and health restoration during acute and chronic illness. Student practices thirty hours per week in a supervised clinical setting.

Parent Education

PAR 205-3 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 raised. The aim of the course is to provide a broad overview of the field, either as a basis for further coursework in parent education or as a brief introduction to an area of growing interest.

PAR 307-3 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 which impact it. 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 489-3 Parent Education Field Placement (0 + 9)

Prerequisites: PAR 205 and PAR 307

The field placement is individually designed to meet the needs of the student. It provides opportunities to plan, implement, and evaluate programs and projects in a parent education setting. The program director works closely with students and community agencies in setting up each field placement.

Philosophy

Special Notes on 100-Level Philosophy Courses

All 100-level courses are survey type designed to provide special familiarity with philosophy as a discipline. Some of the skills within this discipline that will be developed are identifying assumptions and implications, recognizing arguments, making distinctions and developing categories, and formulating reasoned evidence. Any of these courses can be taken as a first course in philosophy.

PHI 101-3 Introduction to Philosophy (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

This course constitutes a survey of the major areas of philosophical inquiry: the enduring questions and alternative answers which 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, and (5) ethics. (*General Studies Course - Level II, Arts and Letters*)

PHI 102-3 Historical Introduction to Philosophy (3 + 0)

An investigation of the historical roots of the Western philosophical traditions in Greek and Roman thought, medieval European belief systems, and modern philosophical trends. This tradition is understood as a dynamic process of speculation and criticism.

PHI 103-3 Ethics (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

This course provides a survey of alternative ethical viewpoints with a focus on the principles of moral action. The implications of these ethical positions 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 Course - Level II, Arts and Letters*)

PHI 104-3 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 105-3 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 111-3 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 Course - Level I, Communications*)

PHI 144-3 Logic (3 + 0)

A general introduction to both informal and formal logic, the systems of rules for judging the validity of deductive and inductive arguments. Included are Aristotelian syllogistic deduction, modern truth-functional deduction, informal fallacies, inductive argumentation, and scientific method.

Special Notes on 200-Level Courses

All 200-level courses are concept/skill-type courses. They are designed to develop such philosophic skills as critical thinking, recognition of issues, reasoned argumentation, knowledgeable judgments, clarity in expression, and familiarity with philosophic resources.

PHI 291 is a variable-title course. Students may repeat this course for credit with permission of the department.

Although there are no formal prerequisites for 200-level courses, it is recommended that a student have satisfactorily completed at least 3 hours of 100-level philosophy.

PHI 200-3 Aesthetics: Philosophies of Art (3 + 0)

Philosophical examination of principles of beauty, creativity and theories of art.

PHI 204-3 Philosophies of Religion (3 + 0)

A critical investigation of various dimensions and functions of religion to provide a basis for discussion of man as a religious being and the future of religion.

PHI 209-3 Biomedical Ethics (3 + 0)

An introduction to philosophical ethics and its relevance to moral issues generated by the development of technologies in the life sciences and medicine. Discussion of moral issues related to genetic screening, abortion, euthanasia, health care distribution and biological research will be included.

PHI 210-3 Considering Alternative Futures (3 + 0)

An exploration of the possible futures for humankind. An introduction to the emerging discipline of futures studies. Emphasis is on philosophical consideration of assumption systems in leading social paradigms. Note: This course is in the process of discontinuance.

PHI 291-1-3 Experiential Philosophy: (Variable Title) (0 + 2-6)

Prerequisite: One introductory course in philosophy or permission of instructor

An off-campus course designed to place students into environmentally stressful situations or situationally meaningful environments. A variety of experiences (physical, mental, emotional, etc.) are planned to accompany readings and personal guidance through a philosophical study of "self." Note: This course is in the process of discontinuance.

Special Notes on 300-level courses

All 300 level courses are depth-probe type courses. They are designed to provide a rigorous, scholarly study of philosophic methods, problems, and solutions. Primary sources will be used whenever possible and the student will be expected to do maximal work on her or his own, with direction from the instructor.

PHI 341, 361, and 381 are variable title courses. The subject matter of these courses is variable in order to provide an opportunity for in-depth study in a number of specific areas. The particular subject matter to be investigated in any given semester will be specified in the title as it appears in the class schedule. It is possible to repeat any of these courses for credit provided the subject matter is not the same as in a course previously taken for credit.

PHI 300-3 History of Greek Philosophy (3 + 0)

Prerequisites: PHI 101 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 Course - Level II, Arts and Letters*)

PHI 302-3 History of Modern Philosophy (3 + 0)

Prerequisites: PHI 101 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 Course - Level II, Arts and Letters*)

PHI 312-3 Philosophy of Language (3 + 0)

Prerequisites: PHI 101 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 321-3 Philosophies of Social Change (3 + 0)

Prerequisite: Upper-division status in the college or six semester hours in philosophy

An investigation of emerging options and philosophies of change in three crucial areas of social pattern and theory: (1) people in their immediate social environments; (2) changing communities and cultures as structures and systems; (3) global futurism. Course will be self-structuring. Note: This course is in the process of discontinuance.

PHI 322-3 Personal Knowledge and Professional Growth (3 + 0)

Prerequisite: Upper-division status or PHI 101

How to use philosophy (ways of knowing, types of reality, logic) in personal and professional growth. In addition to readings, the Progoff Journal method (C) will be employed. Designed for all students who expect to enter a profession.

PHI 332-3 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 335-3 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 20th century.

PHI 336-3 Business Ethics (3 + 0)

Prerequisites: Junior standing or permission of instructor and satisfaction of Level I General Studies Course requirements

This course examines the values and value conflicts inherent in the modern practices of the business world, investigates the major philosophical issues which 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 Course-Level II, Arts and Letters*)

PHI 340-3 Philosophies of Science (3 + 0)

Prerequisites: PHI 101 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 341-3 Eastern Philosophies: (Variable Title) (3 + 0)

Prerequisite: PHI 104 or permission of the instructor

An in-depth study of particular ancient and modern schools and movements in Eastern philosophy such as: the philosophies of the Vedas and the Upanishads; Yoga, Vedanta; Buddhist philosophies; Confucianism, Taoism, Moism, Shinto, and Zen.

PHI 342-3 (CHS 351) Aztlan: Myth and Reality (3 + 0)

Prerequisite: CHS 200 or permission of instructor

The purpose of this course is to study Aztlan as a concept, a historical, geographical and mystical reality utilizing time, space, and relationships as well as the belief systems of the Pre-Columbian Meso-American. Credit will be granted for only one of these courses.

Course Descriptions

PHI 343-3 Philosophy of Law: Law, Conscience and the Imagination of Freedom (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 of an in the law will be examined.

PHI 344-3 Symbolic Logic: Techniques and Theory (3 + 0)

Prerequisite: PHI 144

A course in the techniques and metatheory of symbolic logic. Several alternative ways of establishing the validity of arguments will be pursued through to the completeness theorem.

PHI 351-3 Phenomenology: Perception and Existence (3 + 0)

Prerequisite: 9 hours of philosophy including PHI 101 or permission of instructor

A study of two major twentieth century phenomenologists, Husserl and Heidegger. Different conception of what constitutes concrete experience will be examined.

PHI 361-3 Religious Studies: (Variable Title) (3 + 0)

Prerequisites: PHI 101 and PHI 105 or permission of the instructor

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.

PHI 371-3 Intuitive Philosophies (3 + 0)

Prerequisites: PHI 101 plus five hours of philosophy or permission of the instructor

An investigation of philosophies which proceed more from immediately perceived truths than from reasoned evidence. Some of the prominent traditions are aesthetics, mythopoetics, romanticism, existentialism, humanistic psychology and various Eastern and Western mystical and meditational systems.

PHI 381-3 Major Philosophers: (Variable Title) (3 + 0)

Prerequisites: PHI 101 plus five hours of philosophy or permission of the instructor

An in-depth study of specific philosophers such as: Plato, Aristotle, Descartes, Hume, Kant, Hegel, Marx, Engels, Nietzsche, Kierkegaard, Heidegger, Sartre, Merleau-Ponty, Dewey, Wittgenstein and Whitehead.

Special Notes on 400-Level Courses

All 400-level courses are synthesis-type courses. They are designed to enable students to integrate their studies in philosophy and to formulate initially a position of their own. Sometimes 400-level courses are team-taught by several members of the faculty so the student has access to their special expertise in a given field.

PHI 405-3 Comparative Philosophies (Variable Title) (3 + 0)

Prerequisites: PHI 101 and junior standing (9 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.

Physics

PHY 100-4 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

This introductory survey course for nonscientists 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 Course - Level II, Natural Sciences)

PHY 108-3 Physical Science for Teachers (2 + 2)

Prerequisites: Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests and high school algebra or equivalent

A course designed to give prospective or active teachers of science a laboratory orientation to the processes and concepts involved in interpreting the physical surroundings. (General Studies Course - Level II, Natural Sciences)

PHY 125-6 Physics of Aviation (5 + 2)

Prerequisite: MTH 111, MTH 131 or equivalent. Minimum performance standard scores on the reading, writing, and mathematics preassessment placement tests

This is 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 Course - Level II, Natural Sciences)

PHY 201-4 College Physics I (4 + 0)

Prerequisites: Concurrent registration with PHY 203 is recommended. MTH 112 or equivalent; and satisfaction of either ENG 101 or the Level I Communication requirement. Completion of PHY 201 and PHY 203 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 Course - Level II, Natural Sciences)

PHY 202-4 College Physics II (4 + 0)

Prerequisites: Concurrent registration with PHY 204 is recommended. PHY 201 and satisfaction of either ENG 101 or the Level I Communication requirement. Completion of PHY 202 and PHY 204 with a passing grade is required to receive General Studies credit

The course is a continuation of PHY 201, the algebra-based introductory physics course. Topics include electricity and magnetism, electromechanical devices, AC circuits, geometrical and physical optics, and modern physics. (General Studies Course - Level II, Natural Sciences)

PHY 203-1 College Physics Laboratory I (0 + 2)

Prerequisites: Concurrent registration with PHY 201 is recommended. MTH 112 or equivalent; and satisfaction of either ENG 101 or the Level I Communication requirement. Completion of PHY 201 and PHY 203 with a passing grade is required to receive General Studies credit

This course is the first semester of a one-year sequence in laboratory work which 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 mechanics. (General Studies Course - Level II, Natural Sciences)

PHY 204-1 College Physics Laboratory II (0 + 2)

Prerequisites: Concurrent registration with PHY 202 is recommended and satisfaction of either ENG 101 or the Level I Communication requirement. Completion of PHY 202 and PHY 204 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 which 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 Course - Level II, Natural Sciences)

PHY 231-4 General Physics I (4 + 0)

Prerequisites: Concurrent registration with PHY 232 is recommended. MTH 141 and satisfaction of either ENG 101 or the Level I Communication requirement. Completion of PHY 231 and PHY 232 with a passing grade is required to receive General Studies credit

This first term of a one-year introductory calculus-based physics course is suitable for science and engineering students. Topics treated include mechanics, heat and thermodynamics, electricity and magnetism, and light. (General Studies Course - Level II, Natural Sciences)

PHY 232-1 General Physics Laboratory I (0 + 2)

Prerequisites: Concurrent registration with PHY 231 is recommended. Satisfaction of either ENG 101 or the Level I Communication course requirement. Completion of PHY 231 & 232 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 are selected to reinforce or extend the work of the lecture portion of the course. Emphasis is on mechanics. (General Studies Course - Level II, Natural Sciences)

PHY 233-4 General Physics II (4 + 0)

Prerequisites: Concurrent registration with PHY 234 is recommended. MTH 141, PHY 231 and 232 or equivalent and satisfaction of either ENG 101 or the Level I Communication course requirement. Completion of PHY 233 & 234 with passing grades is required to receive General Studies credit

As a continuation of PHY 231, 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 geometric optics. (*General Studies Course - Level II, Natural Sciences*)

PHY 234-1 General Physics Laboratory II (0 + 2)

Prerequisite: Concurrent registration with PHY 233 is recommended. MTH 141, PHY 231 and 232 or equivalent and satisfaction of either ENG 101 or the Level I Communication course requirement. Completion of PHY 233 & 234 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 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 Course - Level II, Natural Sciences*)

PHY 281-3 Modern Physics (3 + 0)

Prerequisites: MTH 241 and one year of physics, or consent of instructor

An introductory course of the modern branch of physics which will cover the special theory of relativity, the basic phenomenology of atomic and nuclear physics, and the basic concepts of quantum mechanics.

PHY 282-3 Classical Physics (3 + 0)

Prerequisites: MTH 241 and one year of physics, or consent of instructor

Fundamental principles of mechanics, thermodynamics, electromagnetism, and optics will be reviewed with an emphasis on understanding of physics through problem-solving.

PHY 308-3 Energy and Environment (3 + 0)

Prerequisites: PHY 100 or PHY 201 or equivalent

A course in the supply and usage of energy resources and the environmental problems associated with our energy usage.

PHY 311-3 Methods of Mathematical Physics I (3 + 0)

Prerequisite: MTH 241

First term of a one-year sequence in mathematical techniques as applied to the equations of physics. Topics covered include vector analysis, coordinate systems, matrices and determinants, infinite series and infinite products, and complex analysis.

PHY 312-3 Methods of Mathematical Physics II (3 + 0)

Prerequisite: PHY 311

Continuation of PHY 311. Topics covered include calculus of variations, special functions, integral transforms, linear vector space, and tensor analysis.

PHY 321-4 Analytical Mechanics (4 + 0)

Prerequisites: PHY 282 and MTH 342, or consent of instructor

A course in mechanics at the intermediate level. Topics covered include the Lagrange and Hamilton formulations, the two body problem, rigid body motion, and small oscillations.

PHY 333-4 Electricity and Magnetism (4 + 0)

Prerequisites: PHY 282 and MTH 342, or consent of instructor

A course in electricity and magnetism at the intermediate level. Topics covered include Maxwell's equations, boundary value problems, electrodynamics and relativity, and electromagnetic radiation.

PHY 341-3 Thermal Physics (3 + 0)

Prerequisite: PHY 282 or consent of instructor

A course covering 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 362-3 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, and musical instruments. Although this course is mainly descriptive, some high school algebra will be used. (*General Studies Course - Level II, Natural Sciences*)

PHY 371-2 Physics Laboratory I (0 + 2)

Prerequisite: PHY 281

This is the first term of a one-year sequence in laboratory work at the junior level. Topics included are electrical measurements, electrical measuring systems, and experimental optics.

PHY 372-2 Physics Laboratory II (0 + 2)

Prerequisite: PHY 281

Continuation of PHY 371.

PHY 381-3 Quantum Mechanics (3 + 0)

Prerequisites: PHY 321 and MTH 342, or consent of instructor.

A course in which both wave mechanics and matrix mechanics are developed and applied to selected problems in atomic physics.

PHY 451-3 Optics (3 + 0)

Prerequisite: PHY 282 or equivalent

A course which 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 461-2 Computational Physics I (2 + 0)

Prerequisite: PHY 312 or MTH 344 or equivalent

This course is designed to provide an understanding of the role of the computer in modern theoretical physics by studying the simulation of physical phenomena in various fields of physics.

PHY 462-2 Computational Physics II (0 + 4)

Prerequisite: PHY 461 and satisfaction of all Level I and Level II General Studies course requirements and senior standing

This is a course in which the student is assigned an individual advanced level project modeling a physical phenomenon on the computer. (*General Studies course, Level III - Senior Experience*)

PHY 463-3 Continuum Physics (3 + 0)

Prerequisite: PHY 312 or equivalent

A course which presents the basic physical principles of fluid mechanics and elasticity together with their application to various problems in astronomy, physics, geology and medicine.

PHY 465-3 Solid State Physics (3 + 0)

Prerequisites: PHY 341 and PHY 381 or consent of the instructor

A course in which the basic thermal and electrical properties of solids are explained in terms of the Brillouin zone structures of phonons and electrons.

PHY 471-2 Advanced Physics Laboratory I (0 + 2)

Prerequisite: PHY 371

Laboratory work at the advanced undergraduate level and individual student projects are emphasized.

PHY 472-2 Advanced Physics Laboratory II (0 + 2)

Prerequisites: PHY 371; 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. (*General Studies Course - Level III, Senior Experience*)

PHY 481-3 Atomic and Molecular Structure (3 + 0)

Prerequisite: PHY 381

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 482-3 Subatomic Physics (3 + 0)

Prerequisite: PHY 481

An introductory treatment of the various concepts and models used to describe nuclear and high energy particle phenomena.

PHY 492-1 Physics Senior Seminar (1 + 0)

Prerequisites: PHY 471 or consent of instructor; satisfaction of all Level I and Level II General Studies course requirements and senior standing

Corequisite: PHY 462 or PHY 472 or consent of instructor

This is a course in which graduating seniors report on individual projects to their peers and the department faculty. (*General Studies Course - Level III, Senior Experience*)

Course Descriptions

Political Science

PSC 101-3 American National Government (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

This course explores the American political process with emphasis on the federal government: how it is organized, formal and informal sources of power and influence, political attitudes and behavior of American citizens, civil rights, constitutional evolution, factors of change and stability. (*General Studies Course - Level II, Social Sciences*)

PSC 102-3 Political Systems and Ideas (3 + 0)

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests

The course provides ways of looking at political society, the often unsettling realities of politics, and political science as a discipline; searches for the means of understanding, acting, and living in an increasingly complex and interdependent world of decision making and problem solving; and emphasizes the basic ideas, structures, and issues of modern political systems. (*General Studies Course - Level II, Social Sciences*)

PSC 103-3 Politics in the Media (3 + 0)

An analysis of current political issues as portrayed in the daily and weekly press and broadcast media. 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 220-3

(AAS 220) Politics and Black People (3 + 0)

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 of these courses.

PSC 300-3 American State and Local Government (3 + 0)

Prerequisite: PSC 101 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 302-3 Introduction to Public Administration (3 + 0)

Prerequisite: PSC 101 or 102 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 303-3 Introduction to International Relations (3 + 0)

Prerequisite: PSC 101 or 102 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 305-3 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 Course - Level II, Arts and Letters*)

PSC 309-3 Current Topics in Political Science (3 + 0)

Prerequisite: PSC 101 or 102 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 310-3 American Political Parties and Elections and Voting Behavior (3 + 0)

Prerequisite: PSC 101 or 102 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 nonvoter based on the latest research findings.

PSC 312-3 American Constitutional Law (3 + 0)

Prerequisite: PSC 101 or permission of instructor

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.

PSC 313-3 The American Presidency (3 + 0)

Prerequisite: PSC 101 or 102 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 public, and private interests and the potential for abuse of power and its prevention.

PSC 314-3 The American Congress and Legislative Process (3 + 0)

Prerequisite: PSC 101 or 102 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 316-1-3 Readings in Political Science and Public Administration (1-3 + 0)

This course provides the opportunity for the student to explore important writings in a selected subject area of political science. A self-paced course under the guidance of the instructor. Topics vary and the course may be repeated for credit.

PSC 322-3 Public Policy (3 + 0)

Prerequisite: PSC 101 or 102 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 323-3 Environmental Politics (3 + 0)

Prerequisites: PSC 101, 102 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 324-3 Intergovernmental Relations (3 + 0)

Prerequisite: PSC 101 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 326-3 Politics of Budgeting (3 + 0)

Prerequisite: PSC 302 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 328-3 Public Personnel Administration (3 + 0)

Prerequisite: PSC 302 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 331-3 American Foreign and Military Policy (3 + 0)

Prerequisite: PSC 101 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 policy-making process and the relationship between foreign policy and domestic policies.

PSC 332-3 International Law (3 + 0)

Prerequisite: PSC 303 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 333-3 International Organizations (3 + 0)

Prerequisite: PSC 303 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, the World Bank, etc.

**PSC 340-3
(AAS 340) 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 of these courses.

PSC 352-3 American Political Thought (3 + 0)

Prerequisite: PSC 101 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 360-3 Comparative Politics Area Studies (3 + 0)

Prerequisite: PSC 101 or 102 or permission of instructor

A thorough examination of the political system or systems of a selected foreign nation or geographical region, such as the Soviet Union, Western Europe, or Latin America. Subject matter varies and the course may be repeated for credit.

**PSC 391-3
(AAS 391) African Politics and Government (3 + 0)**

Prerequisite: AAS 113, 230, 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 of these courses.

PSC 402-3 Special Studies (3 + 0)

Prerequisite: Junior or senior standing or permission of instructor

In-depth examination of a selected subject within the overall field of political science. An opportunity to delve into a subject which is not fully covered in any regular course. Content varies, and course may be repeated for credit as the subject matter changes.

PSC 410-3-12 Legislative Internship (0 + 6-24)

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 6 credits. Students must contact the Political Science Department before enrolling for internship.

PSC 412-3-12 Government Agency Internship (0 + 6-24)

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 work load of 20 hours per week would earn 6 credits. Students must contact the Political Science Department before enrolling for internship.

**PSC 440-3
(AAS 440) South African Politics (3 + 0)**

Prerequisite: PSC 101 or 102 or permission of instructor

An in-depth study of the South African political system, its historical development and contemporary operation. Credit will be granted for only one of these courses.

Psychology

PSY 101-3 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 Course - Level II, Social Sciences)

PSY 180-4 Developmental Educational Psychology (3 + 2)

This course focuses on how developmental and educational psychology can be used to better understand and teach children. Emphasis is placed on child development, birth through adolescence. Students will study a variety of theories about learning and the teaching process. Emphasis is on research based approaches to effective teaching. Observation of children is a required part of the class.

PSY 211-3 Educational Psychology (3 + 0)

Prerequisite: PSY 101 or permission of the instructor

Application and examination of various principles of psychology to learning and teaching. There is an examination of the effective mode in the classroom. There is application of new communications as they may affect the classroom.

PSY 216-3 Personality and Adjustment (3 + 0)

Prerequisites: PSY 101, satisfaction of the Level I Mathematics course requirement, and either ENG 101 or the Level I Communication course requirement

The course presents application of principles of psychology to assist individuals in understanding factors which influence personality development, and provides knowledge useful for personal improvements and adjustments as well as for social and professional relationships. (General Studies Course - Level II, Social Sciences)

PSY 221-3 Psychology of Human Development (3 + 0)

Prerequisites: PSY 101, satisfaction of the Level I Mathematics course requirement, and either ENG 101 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 Course - Level II, Social Sciences)

PSY 241-3 Social Psychology (3 + 0)

Prerequisite: PSY 101

An introduction to the content and methods of social psychology. Topics include attitudes, love and attraction, conformity, aggression, altruism, person perception, group dynamics and leadership, environmental effects on behavior, human sexuality, and consumer behavior.

PSY 275-3 Introduction to Holistic Health (3 + 0)

Introduction to the wide variety of factors in disease and health with an emphasis on maximizing health. Psychophysiological, behavioral, cognitive, emotional, racial, and spiritual factors are emphasized from both practical and research points of view. Provides concrete applications of these ideas.

PSY 285-3 Psychology of Sexuality (3 + 0)

Prerequisite: PSY 101 or permission of instructor

Survey of human sexual functioning with an emphasis on psychological components. 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 pornography.

**PSY 295-3 Contemporary Issues:
(Variable Topics) (3 + 0)**

Prerequisite: PSY 101

Deals with issues of personal importance to students, with an emphasis on applying psychological principles and knowledge to contemporary questions, rather than a mastery of an academic content area in psychology. Course content will vary and the course may be repeated for credit as the course title changes.

PSY 303-3 Research in Health and Wellness (3 + 0)

Prerequisites: PSY 275 and/or HES 105. Prior experience with research methods and statistics is useful.

This course is a research course emphasizing research designs, data analyses, and inference problems in the context of medical and wellness research. Laboratory research, field studies, and program evaluation are studied.

PSY 311-3 Introduction to Statistics for Social and Behavioral Sciences (3 + 0)

Application of basic statistics to measurement, analysis, and interpretations in psychology as well as other social and behavioral sciences covering distributions, central tendency, variability, correlation and regression, probability, and hypothesis testing.

PSY 312-3 Inferential Statistics (3 + 0)

Prerequisite: PSY 311

Continuation of PSY 311. Covers sampling, experimental design, hypothesis testing, t-distribution, analysis of variance and covariance, nonparametric statistics, and correlation and regression in the context of behavioral research.

Course Descriptions

PSY 315-3 Introduction to Psychological Testing (3 + 0)

Prerequisite: PSY 311 or permission of instructor

Study of the underlying assumptions of reliability and validity, use of tests in achievement, aptitude, and diagnostic situations. Survey of selected instruments of each type stressing utility and limitations.

PSY 321-3 Abnormal Psychology (3 + 0)

Prerequisite: PSY 216

A study of the varieties of abnormal behavior found in people. Such disorders as anxiety disorders, psychotic conditions, alcoholism, drug addiction, and personality disorders including sexual deviations are considered.

PSY 325-3 Child Psychology (3 + 0)

Prerequisites: PSY 101 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 Course - Level II, Social Sciences*)

PSY 326-3 Psychology of Adolescence (3 + 0)

Prerequisites: PSY 101 and satisfaction of all General Studies Level I course requirements

This course covers the major theories of adolescence and research related to adolescent behavior, including emphasis on the physical, social, cognitive and emotional developments of this period. (*General Studies Course - Level II, Social Sciences*)

PSY 327-3 Adulthood and Aging (3 + 0)

Prerequisite: PSY 101

A developmental study of the adult from young adulthood throughout the remainder of life.

PSY 329-3 Psychology of Individual Differences (3 + 0)

Prerequisite: PSY 101

A survey of research methods and data concerning the nature and extent of human differences on various psychological, morphological, and physiological traits.

PSY 331-3 Research Techniques, Experimental I (2 + 2)

Prerequisite: PSY 311

This course will introduce the student to basic methodology concerned with the collection or interpretation of data. Both experimental and field techniques will be surveyed.

PSY 332-3 Research Techniques, Experimental II (2 + 2)

Prerequisites: PSY 331 and 312

A continuation of PSY 331 with emphasis on experimental and field techniques for both laboratory and field research, conducting experiments, and writing research reports.

PSY 340-3 Psychology of Exceptional Children (3 + 0)

Prerequisite: PSY 221 or 325

Psychology of atypical children: learning disabled, gifted, mentally retarded, physically handicapped, chronically ill, emotionally disturbed, and neurologically impaired.

PSY 342-3 Issues in Social-Personality Psychology: Variable Topics (3 + 0)

Prerequisite: PSY 101, PSY 216 or PSY 241

An in-depth consideration of specific areas and issues in contemporary social psychology and personality theory. Emphasis will be on exploration of current theory, research and applications. Course content will vary and the course may be repeated for credit for different topics. Topics considered may include: transpersonal psychology, social learning theory, attitude change, and others.

PSY 345-3 Industrial Psychology (3 + 0)

Prerequisite: PSY 101

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 350-3 Research Issues: (Variable Topics) (3 + 0)

Prerequisites: PSY 101 and 311 or permission of instructor

An in-depth consideration of current areas and issues in experimental psychology, focusing on the scientific investigation of various aspects of human functioning. Course content will vary and may be repeated for credit as the course title changes. Topics may include sensation and perception, motivation, and others.

PSY 355-3 Environmental/Architectural Psychology (3 + 0)

Prerequisite: PSY 311, or permission of instructor

A survey of experimental and theoretical work focusing on the influence of the physical environment on human behavior.

PSY 370-3 (AAS 370) Psychology of Racism and Group Prejudice (3 + 0)

Prerequisite: Three hours in African American Studies; three hours in psychology; or permission of instructor

An in-depth survey of tensions between racial, ethnic, religious and other groups, with an emphasis on the psychological factors that condition such tensions. Emphases: group differences; social group awareness and prejudice; minority group status; discrimination. Credit will be granted for only one of these courses.

PSY 398-3 Cooperative Education: Psychology (3 + 0)

Prerequisites: PSY 101, major or minor in psychology, upper-division status, permission of instructor

An advanced work experience in a private company or governmental agency related to psychology and supervised by professionals on-the-job in conjunction with an MSCD psychology professor. May be repeated once for credit with a different work experience.

PSY 400-3 Theories of Personality (3 + 0)

Prerequisite: PSY 321

A comprehensive survey of the major contemporary theories of personality.

PSY 431-3 Physiological Psychology (3 + 0)

Prerequisites: PSY 101, nine hours of upper-division psychology courses, or permission of instructor. biology background is desirable.

A study of physiological bases of normal and abnormal behavior with emphasis on neurology and hormones.

PSY 439-3 Psychology of Learning (3 + 0)

Prerequisites: PSY 311 and nine hours of upper-division psychology courses, or permission of instructor

A general study of the psychology of learning including leading theories and principal empirical findings, both historical and contemporary.

PSY 441-3 Human Factors Engineering (3 + 0)

Prerequisite: PSY 311 or permission of instructor

A survey of the field of human engineering dealing with the problems and processes involved in designing equipment and environments to serve their intended functions optimally. Emphasis is on the industrial applications of psychological research data to the design of equipment and environments.

PSY 451-3 History and Systems of Psychology (3 + 0)

Prerequisite: Fifteen semester hours of psychology, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

A survey of major theoretical systems in psychology in the context of an historical perspective. (*General Studies Course - Level III, Senior Experience*)

PSY 460-3 (AAS 460) Black Psychology (3 + 0)

Prerequisite: Six hours in African American studies; six hours in psychology, or permission of instructor

This course will critically examine the major concepts and models in psychology in terms of their applicability to Blacks. New directions and foci in Black psychology will be explored as well as the theories, writings and research of leading Black psychologists. Credit will be granted for only one of these courses.

PSY 463-3 Introduction to Clinical Psychology (3 + 0)

Prerequisites: PSY 321 and PSY 400

Survey of behavioral disorders with emphasis on diagnostic and therapy procedures, techniques, and theories as applied to clinical psychology majors.

PSY 469-3 Survey of Psychotherapies (3 + 0)

Prerequisites: PSY 321 and PSY 400

In-depth survey of theories and techniques of intervening into emotional and behavioral disorders. Focuses on traditional and innovative approaches to hospitalization, psychotherapy, medication, and evolving community-based treatment models.

PSY 493-3 Seminar in Developmental Psychology (Variable Topics) (3 + 0)

Prerequisites: PSY 221 or PSY 325 and PSY 326; junior or senior standing

Content varies, but each involves intensive study of a topic in the area of developmental psychology. Intended for advanced majors. Topics may include cognition, socialization, senescence, and others. May be repeated for credit as the course title changes.

PSY 495-3 Pro-seminar in Psychology (Variable Topics) (3 + 0)

Prerequisites: Junior or senior standing and Psychology major or minor

An intensive teaching seminar, intended for advanced students majoring or minoring in psychology, organized around a selected theme. Course content will vary, and the course may be repeated for credit under different topics. Topics may include teaching methods, sexuality, forensic psychology and others.

Reading

RDG 151-3 Cognitive Strategies for Analytical Reading (2 + 2)

Prerequisites: Minimum performance standard score on the reading preassessment placement test

This course is designed to expand college students' communication strategies in reading, listening, and reasoning. Through pragmatic assignments, students will have the opportunity for guided practice and application. (*General Studies Course - Level I, Communications*)

RDG 205-1 Advanced Reading: Various Topics (1 + 0)

Offered under a variety of topics. Each one-credit module covers an advanced reading skill or competency, such as developing flexible reading rates; skimming and scanning skills; increasing reading comprehension, and using advanced library reference skills.

RDG 306-3 Critical Reading/Thinking (3 + 0)

Prerequisites: RDG 151 or permission of instructor and satisfaction of Level I General Studies Course requirements

Provides instruction and practice for students to understand and detect various techniques writers employ in an attempt to mislead an unsuspecting reader. The intent is to help students learn how to digest information presented in a written medium while rejecting unsupported or fallacious data. (*General Studies Course - Level II, Arts and Letters*)

RDG 312-4 Developing Print Literacy: Preschool-Third Grade (4 + 0)

Prerequisites: EDU 234 and 235 or permission of instructor

This course focuses on instruction which will enable children to develop the skills, concepts, and attitudes necessary for greatest success in becoming proficient with print. The course is intended for those who will be in contact with children in preschool through grade 3.

RDG 313-4 Teaching Reading in the Elementary School: K-6 (4 + 0)

Prerequisites: EDU 212 and PSY 180 or permission of instructor

This course introduces prospective teachers to all aspects of elementary reading instruction. Includes defining the reading process, emergent literacy, word identification strategies, developing vocabulary and comprehension skills, instructional tools and approaches, and adapting reading curriculum to special learners.

RDG 314-2 Whole Language Integration Across the Curriculum (2 + 0)

Prerequisites: RDG 312, 313, or 328 or permission of instructor

Focus is placed upon comprehension-centered whole language as a process. This course is designed to prepare prospective teachers with the practical application of the theoretical concepts of this instructional procedure.

RDG 328-4 Teaching of Reading and Writing in the Content Areas (4 + 0)

Prerequisites: EDU 221 and EDU 222 or permission of instructor

Covers approaches to teaching developmental reading and writing at the secondary (junior-senior high school) level within the content areas. Special emphasis given to preparing lesson plans in various subject matter areas which expand reading and writing skills.

RDG 335-3 Methods of Tutoring (3 + 0)

Prerequisites: Junior standing with a 3.00 GPA in major

Requires students to complete a fundamental training program in tutoring concepts. Thirty hours of tutoring in the student's area(s) of expertise are also required in the Student Academic Development and Assessment Center.

RDG 353-2 Techniques of Teaching Reading to Non-English Speakers (1 + 2)

Prerequisite: RDG 312 or RDG 313 or RDG 328 or permission of instructor

This course covers theories, methods, and techniques for teaching language and reading to the non-English speaker in grades K-6. A minimum of 25 hours of tutoring with a non-English speaker is required.

RDG 358-3 Reading in the Bilingual/Bicultural Classroom (3 + 0)

Prerequisites: RDG 312 or RDG 313 or RDG 328 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 360-3 Practicum in Teaching Reading (1 + 4)

Prerequisite: RDG 312 or RDG 313 or RDG 328 or permission of instructor

This course encompasses planning, preparing, and presenting reading lessons for a group of students in developmental reading programs. It is designed to acquaint prospective teachers with the practical application of theoretical concepts of teaching. Fifty clock-hours of experience in public or parochial schools are required.

RDG 425-4 Remedial Reading Theories and Diagnosis (4 + 0)

Prerequisite: RDG 360 (may be taken concurrently), or permission of instructor

Incorporates study of the factors which may contribute to reading disability, the means by which these may be diagnosed or determined, the extent to which they are related, and the corrective procedures to be followed in eliminating or mitigating these factors.

RDG 434-2 Development of Reading Materials (2 + 0)

Prerequisites: RDG 360 (may be taken concurrently), or permission of instructor

Designed to provide students with the opportunity to analyze and construct reading games and materials appropriate for teaching developmental reading, reinforcing reading skills and concepts, and remediating reading deficiencies.

RDG 450-3 Language Arts and the Classroom Computer (3 + 0)

Prerequisite: RDG 312, 313, or 328 or permission of instructor

Reviews the role of, evaluation of, and strategies for integrating computer software into the language arts classroom. Introduces a common word processing and database program and how to use them in developing reading and writing.

RDG 460-3 Practicum in Teaching Remedial Reading (1 + 4)

Prerequisite: RDG 425 or permission of instructor

Covers administration of diagnostic reading tests to students with reading disabilities on a one-to-one basis. Includes planning and implementation of remediation procedures based on diagnosis for children with these problems. Forty-eight clock hours of tutoring in the reading clinic are required.

Science

SCI 280-6 Conceptual Science and Mathematics (5 + 2)

Prerequisites: MTH 111, 131, or 261; and either ENG 101 or completion of the Level I Communication requirement

This interdisciplinary course develops operational and reasoning skills in the sciences and mathematics. Laboratory work reinforces skills and develops knowledge through applications in the content areas of biology, chemistry, earth science, mathematics, and physics. (*General Studies Course - Level II, Natural Sciences*)

Course Descriptions

SCI 395-3 Methods of Teaching Science (3 + 0)

Prerequisite: Major or minor in science

Designed for those students preparing for teaching science in the secondary school. Course content will include methods of teaching, examination of existing curricular models and construction of curricula. To be taken not more than two semesters before student teaching.

Social Welfare

SWF 101-3 Introduction to Social Welfare Services (3 + 0)

Social services are part of society's response to social problems and human needs. Characteristics of professional social services and roles in mental health, developmental disabilities, community, family, child welfare, and other settings are examined.

SWF 104-4 Human Behavior and the Social Environment (4 + 0)

Presents selected theoretical views and scientific findings about human development and behavior in a social context. Provides fundamental knowledge for effective intervention with client systems at various stages in the life cycle.

SWF 105-4 Family Social Services (4 + 0)

The family is a central focus of work in social services. Concepts and principles of work with families are applied in the analysis of case material. Needs and strengths of contemporary families are examined in relation to selected models of intervention and family policy issues.

SWF 201-3 Social Welfare Services and Populations at Risk (3 + 0)

Prerequisite: SWF 101

Rapid social change and institutional defects have increased the vulnerability of the poor, ethnic minorities, women, disabled persons, and other oppressed groups in urban and rural areas. Social policies and services available to such clients are critically examined.

SWF 202-3 Social Welfare Services and Women (3 + 0)

Prerequisite: SWF 101

The emphasis in this course is on social services for women; social welfare programs and treatment modalities. Social policies and issues related to women are significant themes.

SWF 241-6 Practicum in Social Welfare Services (2 + 12)

Prerequisite: SWF 101 and permission of instructor

Professional roles, skills and techniques are related to a generalist conception of social services. Problem solving activities are applied in field settings to work with individuals, families, small groups, organizations, and communities.

SWF 301-4 Social Welfare Services for Children and Adolescents (4 + 0)

Prerequisite: SWF 101

Policy issues and social welfare 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.

SWF 302-4 Case Management in Social Welfare Services (4 + 0)

Prerequisite: SWF 101 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.

SWF 303-4 Social Services for Adults and the Aging (4 + 0)

Prerequisite: SWF 101 or permission of instructor

The needs, problems, and potentials of the elderly and their families are studied in relation of the social work problem solving process. Social services for the aging are examined. Social policies pertinent to current and future status of the aged are analyzed.

SWF 378-3 Social Welfare Policy (3 + 0)

Prerequisite: SWF 101 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.

SWF 379-3 Research in Social Welfare (3 + 0)

Prerequisite: SWF 101 or permission of instructor

Research concepts, methods, and techniques are applied to social service practice issues.

SWF 401-4 Practice in Social Welfare Services (4 + 0)

Prerequisites: SWF 101 and 241

Advanced study in social service processes with a focus on major theoretical approaches to practice with individuals, families, groups, and communities. Each approach will be covered in terms of theoretical base, and applications in practice including techniques and evaluation.

SWF 441-4 Cross-Cultural Social Welfare Services (4 + 0)

Prerequisite: SWF 101

Emphasis is on the principles and perspectives essential to helping Black, Asian-American, Hispanic, Native-American, and other minority clients. Strengths and problems are analyzed.

SWF 479-6-12 Professional Internship (0 + 18 + 36)

Prerequisite: Permission of instructor required

Students demonstrate readiness for beginning professional employment while in their supervised placement. Completion of a senior project is required which further integrates the academic (theoretical) program with the practice experience in the field. Students may register twice for this course to enhance their field work experience.

Sociology

SOC 101-3 Introduction to Sociology (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests

This course 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 people in groups; the importance of culture; the processes of socialization, social control, and social conflict; and the major institutions of society. (*General Studies Course - Level II, Social Sciences*)

SOC 104-3 Introduction to Gerontology (3 + 0)

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.

SOC 200-3 (AAS 200) Social Movements and the Black Experience (3 + 0)

Prerequisite: AAS 101, SOC 101, or permission of instructor

A socio-cultural analysis and interpretation of the nature, cause and consequence of Black social movements in the United States ranging from the slave period to the present time. Particular attention will be given to the Civil Rights movement of the 1950s and 1960s.

SOC 201-3 Current Social Issues (3 + 0)

Prerequisites: SOC 101, satisfaction of the Level I Mathematics course requirement, and either ENG 101 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 Course - Level II, Social Sciences*)

SOC 204-3 Aging in American Society (3 + 0)

Social structure and social institutions and their influence on the elderly population, with emphasis on the economy, government, community, family, health, work, retirement, social roles, and leisure activities.

SOC 240-3 (CHS 221) The Chicano Family (3 + 0)

Prerequisite: CHS 100 or permission of instructor

Provides the participant with an opportunity to study the Chicano family as a social institution in its varying manifestations as it transmits knowledge for existence in a multicultural world. Credit will be granted for only one of these courses.

SOC 250-3 Deviant Behavior in Society (3 + 0)

Prerequisite: SOC 101

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 304-3 Contemporary Issues in Gerontology (3 + 0)*Prerequisite:* SOC 101

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 309-3 Urban Sociology (3 + 0)*Prerequisite:* SOC 101

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 310-3 Death and Dying (3 + 0)*Prerequisite:* SOC 101

An examination of attitudes, customs, and institutions related to death and dying, approached three-dimensionally: from the view-point 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 313-3**(CHS 310) The Chicano Community (3 + 0)***Prerequisites:* CHS 100 or permission of instructor and satisfaction of Level I General Studies Course requirements

This course offers an in-depth study of the history of community organizations, the process by which they came about and information relative to existing organizations and their functions in the community. (*General Studies Course - Level II, Social Sciences; Multicultural*)

SOC 314-3**(AAS 330) The Black Community (3 + 0)***Prerequisite:* AAS 101 or AAS/SOC 200, or permission of instructor and satisfaction of all Level I General Studies Course requirements

This course 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. The local, national and international Black Community will be emphasized. Classic and Contemporary Black Community Studies will be examined. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Social Sciences; Multicultural*)

SOC 316-3 Industry and Occupations (3 + 0)*Prerequisite:* SOC 101

A study of industrial development and occupational change; industrial organization and labor unionism; occupation, control, and social class; industry, labor and politics; the evolution of managerial philosophies; the changing nature of the work force; and the impact of technological progress on the work process and the labor force.

SOC 318-3 Labor and Management Organizations (3 + 0)*Prerequisite:* SOC 101

A critical investigation of the history of labor and management philosophies and organizations will provide a basis for in-depth discussion of contemporary labor and management organization and conflict.

SOC 320-3 Social Classes in America (3 + 0)*Prerequisite:* SOC 101

An in-depth study of social class in American society and of various theories of social class and social stratification, with emphasis on Marxist theories of class. Class sessions will provide practical applications of the theories covered to social, political, and economic forces in contemporary society, and the interaction between class and such other factors as race, education, occupation, and sex will be explored.

SOC 322-3**(WMS 346) Race, Sex and Ethnic Groups (3 + 0)***Prerequisite:* SOC 101

A focus on race, racism, sex biases, and ethnic prejudices, their origins and characteristics; facts and myths about populations, including the social, psychological and cultural sources of discrimination and bias; implications in current societal structures and institutions. (*General Studies Course - Level II, Social Sciences; Multicultural*)

SOC 324-3 Poverty in America (3 + 0)*Prerequisite:* SOC 101

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 332-3 Sociological Theory: Past and Present (3 + 0)*Prerequisite:* SOC 101

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 340-3 Childhood and Adolescent Socialization (3 + 0)*Prerequisite:* SOC 101

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 341-3 The Family in Transition (3 + 0)*Prerequisite:* SOC 101

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 342-3 Education in a Changing Society (3 + 0)*Prerequisite:* SOC 101

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 343-3 Sociology of Sex Roles (3 + 0)*Prerequisite:* SOC 101

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 sex-role typing in the United States and in other societies, and on the effects on individuals and the broader society of maintaining and/or changing sex roles.

SOC 344-3**(AAS 355) The Black Family (3 + 0)***Prerequisites:* AAS 101 or SOC 101 and satisfaction of all Level I General Studies course requirements

This course provides an in-depth exploration of the Black family as a social institution. Specific emphasis is placed on the historical roots of the Black family and how the African influence is still enmeshed in the functioning of the family in modern society. The factors responsible for the ability of the Black family to meet the challenge of a changing society will be examined. Credit will be granted for only one of these courses. (*General Studies Course - Level II, Social Sciences*)

SOC 346-3 Sociology of Sexuality (3 + 0)*Prerequisite:* SOC 101

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 analyses 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 350-3 Criminology (3 + 0)*Prerequisite:* SOC 101

A sociological analysis of the nature, causes, and treatment of crime and delinquency; of the processes by which persons and behaviors come to be defined as criminal, and the processes by which such persons and behaviors develop.

Course Descriptions

SOC 351-3 Juvenile Delinquency (3 + 0)

Prerequisite: SOC 101

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 355-3 The Sociology of Law (3 + 0)

Prerequisite: SOC 101

An examination of the legal norms, the administration of the criminal law, and the impact of legal sanctions.

SOC 360-3 Research in the Social Sciences (3 + 0)

Prerequisite: SOC 101

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 365-3 Contemporary Social Trends: Variable Topics (3 + 0)

Prerequisite: SOC 101

An examination of trends and/or issues in contemporary society, using the sociological perspective. Each section addresses a separate issue or development. May be repeated under each different topic.

SOC 371-3 Politics and Power (3 + 0)

Prerequisite: SOC 101

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 373-3 Mass Media and Social Behavior (3 + 0)

Prerequisite: SOC 101

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 in contemporary society.

SOC 380-3 Health and Healers (3 + 0)

Prerequisite: SOC 101

The health care system is currently in a state of transition. This course is designed to analyze from a variety of theoretical models the changes taking place. Specific issues as well as the roles of the participants will be analyzed in terms of the impact upon the health of Americans.

SOC 381-3 Population Issues (3 + 0)

Prerequisite: SOC 101

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 383-3 Mental Disorders (3 + 0)

Prerequisite: SOC 101

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 391-3 Religious Movements in America (3 + 0)

Prerequisite: SOC 101

An in-depth analysis of religion as a social institution, its relationship to other institutions, and its importance for stability and change and for order and conflict in society and among societies. Contemporary American sects and religious movements are emphasized, with comparison to religion in other areas of the world.

SOC 430-3 Social Change (3 + 0)

Prerequisite: SOC 101

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 inhibiting change will be analyzed.

SOC 435-3 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, etc.; or of selected theoretical systems in contemporary or classical sociology. May be repeated under different topics.

SOC 460-3 Advanced Research in the Social Sciences (3 + 0)

Prerequisite: SOC 101 and SOC 360; satisfaction of Level I and Level II General Studies Course requirement and senior standing

Continuation of SOC 360. 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. (General Studies Course - Level III, Senior Experience)

SOC 470-3 Advanced Field Internship (0 + 9)

Prerequisites: SOC 201 and upper-division standing

An advanced level supervised inservice field experience in the broad area of social concern and the urban scene, conducted with the cooperation of participating agencies and institutions.

Spanish

SPA 101-5 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 102-5 Elementary Spanish II (5 + 0)

Prerequisite: SPA 101 or one or two years of high school Spanish

This course is the continuation of SPA 101. (General Studies Course - Level I, Communications)

SPA 111-3 Basic Conversational Spanish I (3 + 0)

This course is designed to teach the essentials of the Spanish language through a conversational approach.

SPA 112-3 Basic Conversational Spanish II (3 + 0)

Prerequisite: SPA 111 or equivalent or permission of instructor

A continuation of SPA 111.

SPA 211-3 Intermediate Spanish (3 + 0)

Prerequisites: SPA 101 and 102

This course emphasizes oral proficiency and continues the sequence of SPA 101 and 102. Classes are taught mainly in Spanish.

SPA 212-3 Spanish Reading and Conversation (3 + 0)

Prerequisite: SPA 211, or equivalent, or permission of instructor

This intermediate course is designed to afford the student the necessary practice to communicate with ease in Spanish. Emphasis lies on vocabulary building, reading of cultural material, and conversational skills.

SPA 231-3 Spanish Grammar and Composition I (3 + 0)

Prerequisite: SPA 102 or two or three years of high school Spanish

This is an intermediate course to review and strengthen knowledge of the structure of the Spanish language as a basis for more advanced work in speaking, understanding, reading, and writing.

SPA 232-3 Spanish Grammar and Composition II (3 + 0)

Prerequisite: SPA 231 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 310-3 Spanish Terminology for the Bilingual Classroom (3 + 0)

Prerequisite: Two years of college Spanish, its equivalent, or permission of the instructor

This is a practical course designed to help students and teachers with the Spanish terminology used in the different areas of instruction.

SPA 311-3 Advanced Conversation (3 + 0)

Prerequisite: Two years of college Spanish or equivalent, or permission of instructor

This is an advanced course designed to broaden and strengthen the student's conversational skills, emphasizing current topics in the Hispanic world.

SPA 314-3 Advanced Composition (3 + 0)

Prerequisites: SPA 231 and 232 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 315-3 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 320-3 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, based on a reading-lecture-discussion format. Entirely conducted in Spanish. Oral presentations by participant students will be required. (General Studies Course - Level II, Arts and Letters)

SPA 321-3 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 Course - Level II, Arts and Letters)

SPA 322-3 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. (General Studies Course - Level II, Arts and Letters)

SPA 325-3 Introduction to Literary Studies in Spanish (3 + 0)

Prerequisite: SPA 232 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 333-2 Spanish Social and Commercial Correspondence (2 + 0)

Prerequisite: SPA 232 or equivalent, or permission of instructor
This course presents the fundamental points relative to personal and business letters in Spanish, special emphasis on the development of a vocabulary for all types of letters.

SPA 340-3 Survey of Spanish Literature I (3 + 0)

Prerequisite: SPA 325 or equivalent, or permission of instructor
This course is 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 341-3 Survey of Spanish Literature II (3 + 0)

Prerequisite: SPA 325 or equivalent, or permission of instructor
This course presents Spanish literature since 1870, including postromanticism, realism, naturalism, the generation of 1898, the genero chico, and more recent works. Conducted in Spanish.

SPA 351-3 Masterpieces of Latin American Literature (3 + 0)

Prerequisite: SPA 325 or equivalent, or permission of instructor
This course is designed to introduce the student to the most important works in Latin American literature with an emphasis in the late nineteenth and early twentieth centuries. Conducted in Spanish.

SPA 352-3 Contemporary Mexican Literature (3 + 0)

Prerequisite: SPA 325 or equivalent, or permission of instructor
This is a course which presents the most representative literary figures of contemporary Mexico. Beginning with the novel of the Revolution, the student will be reading and discussing the works of living authors, including Juan Rufo, Carlos Fuentes, and Octavio Paz. Conducted in Spanish.

SPA 401-3 Advanced Spanish Writing and Grammar I (3 + 0)

Prerequisite: SPA 314 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 402-3 Advanced Spanish Writing and Grammar II (3 + 0)

Prerequisite: SPA 401 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 411-3 Contemporary Spanish Literature (3 + 0)

Prerequisite: SPA 340 or 341 or equivalent, or permission of instructor
This course involves the study and discussion of the major works in contemporary Spanish literature. The course is designed to provide a meaningful language experience through literature and to give an insight into essential problems common to the Hispanic world. Conducted in Spanish.

SPA 412-3 Contemporary Latin-American Literature (3 + 0)

Prerequisite: SPA 351 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 420-3 Spanish-American Essay: 19th and 20th Centuries (3 + 0)

Prerequisite: SPA 311 or equivalent, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing
This course presents, discusses and analyzes the most important literary work of representative nineteenth and twentieth centuries Spanish-American essayists. The course is aimed at exposing the student to the thought and stylistic modes found in the intellectual production of the selected prominent figures to be studied. Conducted in Spanish. (General Studies course - Level III, Senior Experience)

SPA 431-3 History of the Spanish Language (3 + 0)

Prerequisite: SPA 314 and SPA 401 or SPA 402, satisfaction of all Level I and Level II General Studies course requirements, and senior standing
This is 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. (General Studies Course - Level III, Senior Experience)

Speech**SPE 101-3 Fundamentals of Speech Communication (3 + 0)**

Prerequisites: Minimum performance standard scores on the reading and writing preassessment placement tests
An introductory course designed to acquaint the student with the basic theory of the art of public speaking, and to provide experience in the preparation and delivery of short talks. (General Studies Course - Level I, Communications)

SPE 170-3 Oral Communication Theory (3 + 0)

Prerequisite: SPE 101
A review of the research, theoretical assumptions, and models of the oral communication process, this course is designed to provide students with a broad understanding of the basis of oral communication as patterned human behavior.

Course Descriptions

SPE 171-3 Interpersonal Communications: The Individual as a Communicator (3 + 0)

Prerequisite: Minimum performance standard scores on the reading and writing preassessment placement tests.

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 the course is to increase the students' communication self-esteem.

SPE 173-3 Listening and Interviewing Communication Skills (3 + 0)

Prerequisite: SPE 101 and SPE 170 or SPE 171

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 211-3 Discussion Methods (3 + 0)

Prerequisite: SPE 101 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 221-3 Introduction to Theatre (3 + 0)

Prerequisites: ENG 101 and either SPE 101 or permission of instructor

A comprehensive view of theatrical art providing an understanding of the living stage, its players and craftsmen, and its place as a cultural force in society from antiquity to contemporary times. (*General Studies Course - Level II, Arts and Letters*)

SPE 222-3 Techniques of Acting I (3 + 0)

Prerequisite: SPE 221 or permission of instructor

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 and stage business.

SPE 224-3 Introduction to Stagecraft (2 + 2)

Prerequisite: SPE 221 or permission of instructor

An introduction to the methods and materials of play production including design and construction of sets, lighting practices, techniques of costuming, stage management, and staging methods.

SPE 240-3 Introduction to Radio and Television Broadcasting (3 + 0)

Prerequisite: SPE 101 or permission of instructor

The evolution, organization, and function of broadcasting. Introduction to some of the techniques employed in radio and television broadcasting including film techniques and the film industry as related to the broadcasting industry in the U.S.

SPE 271-3 Interpersonal Communications: the Dynamics of Group Interaction (3 + 0)

Prerequisite: SPE 101

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 272-3 Nonverbal Communication (3 + 0)

Prerequisite: SPE 101 and SPE 170

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 273-3 Communication and Interpersonal Conflict (3 + 0)

Prerequisite: SPE 101

This course develops strategies for managing conflict dynamics in communication interactions at work, home, at school. Effort is made to pinpoint individual communication conflict styles and to assess their effectiveness in conflict interaction.

SPE 277-3

(WMS 277) Gender and Communication (3 + 0)

Prerequisite: SPE 101/SPE 171 or permission of instructor; ENG 101 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 is 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 of these courses. (*General Studies Course - Level II, Arts and Letters*)

SPE 301-3 Advanced Public Speaking (3 + 0)

Prerequisites: SPE 101 and 211 or permission of instructor

Preparation, presentation, and appraisal of speeches on challenging 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 305-1 Intercollegiate Forensics (0 + 2)

Prerequisite: SPE 101 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 308-3 Great American Speakers (3 + 0)

Prerequisites: SPE 101 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 Course - Level II, Arts and Letters*)

SPE 309-3 Argumentation and Advocacy (3 + 0)

Prerequisite: SPE 101 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 310-3 Business and Professional Speaking (3 + 0)

Prerequisite: SPE 101 or permission of instructor

A course designed for the business and professional person, stresses presentational speaking to secure immediate decision. Emphasis is placed on audio-visual materials in sales, training, and policy-making situations. Students are required to eliminate wordiness in their messages.

SPE 311-3 Strategies of Organizational Leadership (3 + 0)

Prerequisite: SPE 101 and either SPE 211 or SPE 271

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 313-3 Conference Leadership and Parliamentary Procedure (3 + 0)

Prerequisite: SPE 101 or permission of instructor

A course designed for the student desiring to develop practical leadership techniques for business and professional meetings. Psychological and communication theory is focused upon practical and effective methods of securing group motivation and interaction relative to the organizational communication process. The course is also designed to give the student basic knowledge of the rules and laws governing procedure for formal groups. Emphasis is placed on active participation and use of the correct parliamentary procedures.

SPE 320-3 Oral Interpretation: Prose and Poetry (3 + 0)

Prerequisite: SPE 101 or permission of instructor

A study of traditional and contemporary theories of interpretation of prose and poetry for the purpose of making that literature come alive for the listening audience, and to improve oral communication skills. Numerous oral performances for the application of techniques.

SPE 322-2 Movement for Stage (2 + 0)*Prerequisite: SPE 222 or permission of instructor*

Acquaints the student with the subtle meanings of physical movement as a part of the act of communication in a theatre experience. Provides studies and experience in movement analysis as well as a means of refining the body as a part of the actor's instruments.

SPE 325-3 Introduction to Scenic Design and Theatre Lighting (2 + 2)*Prerequisites: SPE 221 and 224, or permission of instructor*

The basic elements of scene design and stage lighting for theatrical productions. Several actual design and lighting projects with lectures on the different theories and styles. Emphasis will be placed on design procedures, color, projection, and equipment control, and utilization of facilities.

SPE 328-3 Stage Directing (2 + 2)*Prerequisites: SPE 222 and 224, or permission of instructor*

The principles and techniques of directing for the theatre, including the selecting, casting, rehearsing and mounting of plays; student directing projects.

SPE 330-3 Voice Science: Phonetics and Voice and Diction (2.5 + 1)*Prerequisite: SPE 101 or permission of instructor*

Applied instruction in the International Phonetic Alphabet including the science of speech sounds. Particular emphasis is placed on the use of phonetics, and the improvement of acceptable standards of usage in General American Speech.

SPE 343-3 Radio-Television Announcing (3 + 0)*Prerequisites: SPE 240 and 330*

An advanced course in "on air" operations designed to meet the specific needs of the telecommunications broadcaster and the radio-television-film announcer. Instruction designed to develop pleasing and persuasively effective verbal-vocal-non-verbal communication as a means for improving a variety of telecommunications presentations will be included. Special emphasis will be placed on standard American usage of speech and language particularly as applied to the International Phonetic Alphabet.

SPE 344-3 Radio-Television Production (3 + 0)*Prerequisite: SPE 240*

A survey course in the use of the "tools" and "crafts" of radio-television-film for a variety of telecommunication production purposes. Basic techniques of studio and remote set-ups for both audio and video production will be included. Specific attention will be focused on preproduction, production, and postproduction activities and procedures related to telecommunications both "over the air" and "closed circuit." Students will participate in both "above and below the line" projects of varying time limits.

SPE 347-3 Evolution of Cinematics as Art (2 + 2)*Prerequisite: SPE 240 or permission of instructor*

A course designed to explore the 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 some important cinematographers.

SPE 348-3 Workshop in Radio-Television Production (1 + 4)*Prerequisites: SPE 240 and 343 or 344 or six hours of equivalent broadcasting courses and/or experience or permission of the instructor*

Advanced projects in radio-television production which are designed to provide the student with an opportunity to produce audio and video programs for use in commercial and/or educational radio, television, and film.

SPE 350-3 Speech Pathology I (2 + 2)*Prerequisites: SPE 330 and human anatomy and physiology, or permission of instructor*

Introductory course in speech pathology including terminology, definitions, and classification of speech problems. Covers normal speech and language development and causes, diagnoses, and therapies of articulation, stuttering, and voice disorders.

SPE 351-3 Speech Pathology II (2 + 2)*Prerequisite: SPE 350 or permission of instructor*

The central nervous system and its relationship to speech. Speech and language problems related to neurological deficit including aphasia, cerebral palsy, mental retardation, and learning disabilities. Emphasizes an interdisciplinary approach to treatment.

SPE 352-3 Language Acquisition (3 + 0)*Prerequisite: SPE 101 or permission of instructor*

The study of language acquisition in children; phonology, syntax, and semantics. Emphasis is on the study of language as a rule-system, linguistic and cognitive implications, and language functions. This course is designed for those interested in clinical careers in speech pathology and audiology, psychology, and education.

SPE 355-2 Speech Pathology: Observation I (2 + 4)*Prerequisite: SPE 350 or permission of instructor*

Provides the opportunity for students to observe the clinical evaluation and treatment of speech, language, and hearing disorders.

SPE 356-1 Speech Pathology: Observation II (0 + 2)*Prerequisites: SPE 350 and 355, or permission of instructor*

Continuation of SPE 355 with provisions for observing in-depth clinical diagnoses and treatment in speech pathology and audiology.

SPE 357-3 Methods of Speech Pathology-Audiology: Diagnostic Procedures (1.5 + 3)*Prerequisites: SPE 101, 350, and 351, or permission of instructor*

This course is designed to expose the student to the various processes of speech and the diagnostic techniques that are available to the speech pathologist and audiologist in determining the type and degree of the speech deficiency.

SPE 358-3 Methods of Speech Pathology: Articulation and Stuttering (1.5 + 3)*Prerequisites: SPE 350 and 355, or permission of instructor*

Methods of management related to articulatory problems. Diagnostic procedures and the application of techniques for correcting the deviations in the production of speech sounds. Identification, diagnosing, and therapeutic techniques used with stutterers.

SPE 359-3 Speech Problems in the Schools (2 + 2)*Prerequisite: Junior or senior standing*

For students whose major interests are distributed among general speech, education, psychology, rehabilitation, nursing and related areas. Appropriate for students considering a major in Speech Pathology and Audiology.

SPE 360-3 Audiology I (2 + 2)*Prerequisite: SPE 101 or permission of instructor*

A study of the anatomy and physiology of the ear, the measurement of sound and of hearing. Includes practice in testing of hearing sensitivity, interpretation of the audiogram, and treatment and audiological management of the hearing-impaired.

SPE 361-3 Audiology II (2 + 2)*Prerequisite: SPE 360 or permission of instructor*

Diagnostic and rehabilitative audiological procedures including the use of amplification. Emphasis is on special testing.

SPE 374-3 Psychology of Communication (3 + 0)*Prerequisites: SPE 101 and satisfaction of Level I General Studies Course requirements*

This course explores the critical examination of the psychological factors underlying speech comprehension, the listener's sets and responses, and the attitudes, beliefs, and predispositions of hearers toward the appeal of the spoken word. (*General Studies Course - Level II, Arts and Letters*)

SPE 376-3 Cultural Influences on Communication (3 + 0)*Prerequisites: SPE 101 and either SPE 171 or SPE 271 or SPE 272*

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, people, and to expand their capacity to adapt to a changing world by exploring perceptual differences, verbal and nonverbal cultural communication similarities and differences.

SPE 377-3 Interpersonal Communication in the Family (3 + 0)*Prerequisites: SPE 101 and either SPE 171 or SPE 271*

This course is designed to assist students to better understand and improve interpersonal communication processes in families, including duo-career communication problems, personality patterns, family group roles, and their impact on interaction, verbal and nonverbal messages in family climates, and listening skills for managing family interpersonal conflict and change.

Course Descriptions

SPE 380-3 Instructional Methods for Speech Teachers and Creative Speech (2 + 2)

Prerequisites: Junior standing in the Speech Education program and/or successful completion of the process for becoming a bona fide speech major, and acceptance into the Teacher Education program by the MSCD Department of Education, 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 405-2 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 408-3 Theories and Criticism of Public Address (3 + 0)

Prerequisite: SPE 101 or permission of instructor

Historical and critical studies of the rhetorical systems and concepts underlying the art of rhetoric. A study of the methods, criteria, and basic use of speech criticism, both as an intellectual discipline and as a practical art in a democratic society.

SPE 409-3 Persuasion in the Greek and Latin Traditions (3 + 0)

Prerequisites: SPE 101 and junior or senior standing, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A course designed to acquaint the student with factors of persuasion originated and taught by Greek and Latin rhetoricians and applied to contemporary issues. Standards of ethical responsibilities of rhetorical persuasion are examined. (*General Studies Course - Level III, Senior Experience*)

SPE 410-3 Techniques of Persuasion (3 + 0)

Prerequisite: SPE 309 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 and contemporary persuasive campaigns. Students will have opportunities to develop persuasive campaigns in various rhetorical areas.

SPE 412-3 Freedom of Speech (3 + 0)

Prerequisite: SPE 101, or junior or senior standing, or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements, and senior standing

A study of the historical and social influences with inquiry into the legacy of our inherited rights to free speech. The course examines the First Amendment's clause on freedom of speech and the press, threats to this freedom, and inquiry into contemporary issues and cases. (*General Studies Course - Level III, Senior Experience*)

SPE 420-3 Reader's Theatre (1.5 + 3)

Prerequisites: SPE 221, 320, 328, or permission of instructor

Concerned with improving the skill of reading dramatic material aloud, usually as a member of a group of student readers. Emphasis is placed upon preparing scripts. Programs will be video-taped and may be presented in public performances.

SPE 426-1 Theatre: Practicum I (0 + 2)

Prerequisites: SPE 101, 224, or permission of instructor

To provide the student with a direct practical experience in production of theatrical productions, thus augmenting the theoretical aspects of other theatre courses. May be repeated for credit for three semesters as the same course number.

SPE 427-2 Theatre: Practicum II (0 + 4)

Prerequisites: SPE 224, 328, 426, or permission of instructor

An advanced course in practical supervision and administration of theatrical productions. Students will direct, design, and manage the plays produced during the semester. Open only to junior and senior level students. May be repeated for three semesters as the same course number.

SPE 448-3 Seminar Practicum in Broadcasting (0 + 6)

Prerequisite: SPE 348 or permission of instructor

An advanced course in direct broadcast production that shows the student an opportunity to supervise a variety of production elements through first-hand experience as a producer/director. Open only to junior and senior level broadcast students. This course may be repeated for three semesters.

SPE 449-3 Effects of Radio-Television on Contemporary Life (2.5 + 1)

Prerequisite: SPE 240 or permission of instructor, satisfaction of all Level I and Level II General Studies course requirements and senior standing

A study of some significant effects of radio-television and the electronic mass media on twentieth century lifestyles. Particular emphasis will be given to "key" indicators of effects including demographics and current research. (*General Studies Course - Level III, Senior Experience*)

SPE 450-1-3 Clinical Practice in Speech Pathology and Audiology (0 + 2-6)

Prerequisites: SPE 350, 351, 357, 360 and 361, or permission of instructor

Methods of administration of clinical tests of speech pathology and audiology and the application of the principles. Students are introduced to supervised clinical practice.

SPE 455-1 Practicum in Speech Pathology (0 + 2)

Prerequisites: SPE 350 and 351, or permission of instructor

Supervised application of the principles and techniques of speech pathology in administering and interpreting voice and articulation tests in the speech and hearing clinic.

SPE 457-3 Medical Aspects of Speech and Hearing Disorders (3 + 0)

Prerequisites: Ten hours of speech pathology; three hours methods; four hours field study, or permission of instructor

Representatives from various medical professions related to speech and language disorders present a series of lectures.

SPE 463-1 Practicum in Audiology (0 + 2)

Prerequisite: SPE 361 or permission of instructor

Supervised application of the principles and techniques of audiology in administering and interpreting hearing tests in the speech and hearing clinic.

SPE 470-3 Speech Communication and the Trainer (0 + 2)

Prerequisite: SPE 101, SPE 170, SPE 171, SPE 271 or permission of instructor

A course 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 476-3 Communication and the Elderly (3 + 0)

Prerequisite: SPE 101 and SPE 171 or SPE 271

Designed to investigate the particular communication patterns and problems of the aged, the course focuses on the culturally communicated attitudes toward the elderly via media, marketing and institutions as well as specific communication issues of the aged such as the communication of intimacy, friendship, control, health confirmation in work environments, home life, retirement and death.

Surveying and Mapping

SUR 151-4 Surveying I (2 + 3)

Prerequisite: High school or college trigonometry or MTH 140

The measuring, recording, and reducing of angles, directions, distances, and elevations. The computation and adjustment of traverses. Area computation and topographic mapping.

SUR 252-4 Surveying II (2 + 3)

Prerequisite: SUR 151

Applications and theory of the state plane coordinate system. Discussion of control, boundary, construction surveys, and photogrammetry. Circular and parabolic curves, and earthwork volumes. Use of modern theodolites.

SUR 253-4 Route Surveying (2 + 3)*Prerequisites:* SUR 252, SUR 262

More complete coverage of curves and earthwork than in SUR 252, including spirals, mass diagram of earthwork quantities, highway geometry and design. Surveys for other routes (railroads, pipelines, tunnels, transmission lines).

SUR 255-3 Surveying Computations (3 + 0)*Prerequisite:* SUR 151

Geometric computations used in surveying, including traverse rotation; radius and curve problems; bearing-bearing, bearing-distance, and distance-distance intersection problems; land partitioning; resection; reduction to center; secants to a circle. Effective use of a programmable calculator for surveying.

SUR 262-3 Survey Drafting (2 + 4)*Prerequisites:* CEN 120, SUR 151

A study of map symbols, contours, sources for map data, and methods used in map plotting. Topographic maps and survey plats, methods of reproduction.

SUR 265-3 Photogrammetry I (2 + 3)*Prerequisites:* SUR 252, SUR 262

Aerial cameras; the geometry of vertical, tilted and overlapping photographs; flight planning; ground control; and stereo plotters.

SUR 271-2 Astronomy for Surveyors (2 + 0)*Prerequisite:* SUR 252

The celestial sphere and solutions for position and direction. Altitude and hour-angle methods of solar observations, and observations of Polaris and other stars by day and night.

SUR 354-3 Boundary Law I (3 + 0)*Prerequisite:* SUR 252

Boundary control and legal principles, subdivision of the public lands, riparian rights.

SUR 362-3 Cartographic Surveys (2 + 3)*Prerequisites:* MTH 141, SUR 252, SUR 262

Plane table mapping, U.S. government maps, introduction to map projections, the military grid (UTM and UPS). Includes both field work and map drafting.

SUR 366-3 Land Information Systems (3 + 0)*Prerequisite:* SUR 252

Procedures and standards for a multipurpose cadastre. Includes a practical project using existing software.

SUR 376-3 Surveying Data Adjustments (3 + 0)*Prerequisites:* MTH 214, MTH 321, SUR 252, SUR 255

Error propagation, weighted means, adjustment of control data using least squares theory, preanalysis of surveys.

SUR 448-3 Geodesy (3 + 0)*Prerequisites:* MTH 241, SUR 474, PHY 233

Introduction to geometric geodesy, three-dimensional coordinate system, geodetic astronomy, gravimetric geodesy, tidal movements, and satellite geodesy. Laplace stations, deflection of the vertical, and the North American Datum of 1983.

SUR 453-3 Site Planning (3 + 0)*Prerequisites:* SUR 255, SUR 262, SUR 354

Case studies in land development or subdivision, including preliminary plans, final plats, grading plans, storm sewer plans, erosion control, and other aspects of design.

SUR 454-3 Boundary Law II (3 + 0)*Prerequisites:* SUR 255, SUR 354

Evidence and procedures for boundary location, professional aspects of land surveying, the concept of the multipurpose cadastre.

SUR 465-3 Photogrammetry II (2 + 3)*Prerequisites:* SUR 265, SUR 376

Photographic films, air photo interpretation, concepts of analytical photogrammetry, survey control extension and densification, modern instrumentation.

SUR 474-4 Geodetic and Special Surveys (3 + 2)*Prerequisite:* SUR 362

Precise surveying measurements and instruments; reduction to datum, second order methods; geodetic computations; hydrographic and mine surveys; gyro theodolites; discussion of inertial and satellite positioning.

Technical Communications**COM 241-3 Basic Multi-Image Production (2 + 2)**

Introduction to the principles of multi-image photography, programming for one and two projector shows, preparation of graphics, sound recording and mixing, and presentation techniques.

COM 242-3 Basic Industrial Videotape Production (2 + 2)

An introduction to the fundamentals of basic industrial production terms and techniques. Students will produce single camera, remote productions.

COM 243-3 Introduction to Industrial Visual Media (3 + 0)

An introduction to media used for industrial applications. Basic techniques, terminology and equipment characteristics, media; several types of media presentations.

COM 244-3 Writing for Radio (3 + 0)*Prerequisite:* ENG 101 or permission of instructor

This course introduces the student to basic radio writing principles, formats, and techniques. The student practices preparing continuity, commercials, public service announcements, and programs.

COM 261-3 Introduction to Technical Writing (3 + 0)*Prerequisite:* ENG 101 or permission of instructor

This course offers practice in the specific techniques required for writing in the areas of technology and science; particular emphasis is placed on report formats for government, science and industry, and the various audiences requiring technical information.

COM 272-3 Introduction to Communications 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 341-3 Advanced Multi-Image Production (1 + 4)*Prerequisite:* COM 241 or permission of instructor

Students will examine and learn complex multi-image techniques. Students will cooperatively produce a multi-image presentation.

COM 342-3 Advanced Industrial Videotape Production (1 + 4)*Prerequisite:* COM 242 or permission of instructor

Students learn about advanced video production techniques including special effects, editing, lighting, graphics, audio recording and scripting. Students will learn how to produce video programs using in-house equipment and personnel and what outside services are available.

COM 344-3 Corporate Scriptwriting for Film and Television (3 + 0)*Prerequisite:* ENG 101 or permission of instructor

This course stresses the principles of corporate film and television scriptwriting, organization, and writing of story outlines, treatments, formats, and scripts. It provides training in the fundamentals of visual and audio applications and production viewing and analysis of film and television productions.

COM 351-3 Organizational Communication (3 + 0)*Prerequisite:* COM 272, equivalent work experience, or permission of instructor

This course focuses on the study of organizational communications, stressing information flow within organizations. Emphasis is placed on the structure and function of communication networks in and between business, government, and industrial organizations. Practice in solving typical communication problems is included.

Course Descriptions

COM 352-3 Communication of Power and Authority (3 + 0)

Prerequisite: Sophomore standing or 3 years full-time employment, or permission of instructor

This course emphasizes the ways decisions are presented and the image of power and authority are transmitted by a variety of verbal and nonverbal techniques. The students learn to use, recognize, and interpret oral and written power language, signs, symbols, and gestures.

COM 353-3 Corporate Cultures (3 + 0)

Prerequisite: COM 272, equivalent work experience, or permission of instructor

This course studies 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 354-3 Developing Computer-Assisted Instruction (3 + 0)

Prerequisite: COM 261 or 272

A course to prepare the student to develop courses for industry and government using computer-assisted instruction for employee/consumer training and retraining.

COM 356-3 Variable Topics in Organizational Communicatting (3 + 0)

Prerequisite: COM 272 or permission of instructor

This is a current topics course which studies topics of particular interest to persons concerned with communication activities in industrial and governmental organizations. The content of the course changes each semester and may be repeated for credit.

COM 361-3 Advanced Technical Writing (3 + 0)

Prerequisite: COM 261 or equivalent work experience

Advanced study of the techniques and principles of technical writing as applied to reports, manuals, and proposals, using formats common to government, science, and industry. It includes the study of report design, audience analysis, report use, and writer intent.

COM 362-3 Industrial Editing and Production (3 + 0)

Prerequisite: COM 261 or permission of instructor

Techniques for producing company publications, including writing, editing, formatting, reproduction and casting.

COM 363-3 Designing Technical Publications (3 + 0)

Prerequisite: COM 261 or permission of instructor

This course emphasizes understanding the role of the designer in the production of technical publications, with analysis of processes, vocabulary, and techniques. The student will be able to do basic publication design for publications of limited size.

COM 364-3 Writing Computer-User Software Documentation (3 + 0)

Prerequisite: COM 261 or CMS 201 or CSI 101

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 366-3 Variable Topics in Industrial and Technical Communications (3 + 0)

Prerequisite: COM 261 or permission of instructor

A current topics course which 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. May be repeated for credit.

COM 378-3 Communications Law (3 + 0)

Prerequisite: 6 hours of COM, JRN, or business courses, or permission of instructor

The study of legal practices which impact professional communicators. Special emphasis is placed on copyright, law of privacy, regulation of advertising, regulation of electronic media, as well as other areas of special interest to industrial and technical communicators.

COM 441-3 Budgeting and Planning for Audio-Visual Productions (3 + 0)

Prerequisites: Junior standing or 12 hours COM designated courses, 9 of which must be upper division

Methods and techniques for budgeting and planning. Viewing and analysis of A-V programs, scheduling for production in terms of time, equipment and cost. Evaluation of finished programs.

COM 462-3 Critical Readings in Industrial and Technical Communications (3 + 0)

Prerequisites: COM 261 and 6 hours of upper-division COM courses, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

A critical reading of the literature of corporate and technical writing will afford the advanced student an opportunity to analyze techniques and strategies used by successful practitioners to communicate with their diverse audiences. Contrast and comparison will allow evaluation of effectiveness and appropriateness of various methods. (*General Studies course - Level III, Senior Experience*)

COM 479-3 Senior Seminar in Technical Communications (3 + 0)

Prerequisites: Junior status with 12 or more hours of COM designated courses, or permission of instructor, satisfaction of all Level I and Level II General Studies Course requirements, and senior standing

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. (*General Studies Course - Level III, Senior Experience*)

Telecommunications

TLC 249-1-6 Internship in Radio-Television-Film-Mass Communications (0 + 3-18)

Prerequisites: SPE 240 and one additional 3-hour course in the area of broadcasting or permission of instructor

Students will receive in-service training at selected radio, television, film or industrial stations or facilities within the greater Denver metropolitan community. The in-service training will vary according to the specific station or facility to which the student is assigned.

TLC 349-1-15 Advanced Internship in Radio-Television-Film-Mass Communications (0 + 3-45)

Prerequisites: TLC 249

Students will receive advanced in-service training at selected radio, television, film or industrial stations or facilities within the greater Denver metropolitan community. The advanced in-service training will vary according to the specific station or facility to which the student is assigned and the semester hours earned will also vary accordingly. This course may be repeated for four semesters and the total amount of semester hours earned overall in TLC 349 will be determined by the department and the telecommunications advisor.

Urban Studies

URS 100-3 Introduction to Urban Studies (3 + 0)

A course that concentrates on: What are urban studies, and how do they affect the daily activities of all urban area residents and institutions? An introductory cross-disciplinary approach to the symbiotic relationships between people and their urban environments. Particular emphasis is placed upon the role of transportation and housing as they influence urban patterns.

URS 171-3 Introduction to Denver Neighborhoods (3 + 0)

A comprehensive study of Denver's 75 neighborhoods as defined by the planning office as well as neighborhoods defined by those who live there. Will include guest speakers and site visits.

URS 200-3 An Inside Look at Urban Institutions (3 + 0)

A course taught by representatives of private, local, state and federal institutions serving urban areas. These institutions are primarily concerned with housing, public services, transportation, planning and land use. The representatives will explain the functions of their particular institutions. The course will be coordinated by a MSCD faculty person.

URS 210-3 An Analysis of Urban Boundaries (3 + 0)*Prerequisite:* URS 100, URS 200 or permission of instructor

Do you know what factors are combined to form such boundaries as political jurisdictions, service districts and police districts? Who determines boundaries, what criteria are used and are they real or perceived? This class is designed to give the student a chance to examine urban boundaries as they affect her or his daily life.

URS 228-3 Introduction to Transportation Systems (3 + 0)

Provides an overview of the development of air, water, and land transportation systems and current problems. Students will analyze environmental and social impacts generated by these systems.

URS 230-3 Introduction to Urban Housing Problems (3 + 0)*Prerequisite:* URS 100 or permission of instructor

A basic course in housing problems in urban America. Some of the problems are presently apparent in Denver and others will be apparent if we don't address them now. Includes such topics as housing markets, the filtering process, exclusionary zoning, suburban sprawl, creation of ghettos, government housing projects, urban homesteading and new towns.

URS 250-3 New Front Range Communities (3 + 0)

Selected analysis of new residential developments, new towns, planned unit developments, retirement communities and communes.

URS 289-1-3 Urban Problems: Topics (1 + 0 - 3 + 0)

The course will focus on current urban problems across the nation. Topics may include problems with pollution, water supply, urban sprawl, controlled growth and alternative forms of transportation.

URS 300-3 World Patterns of Urbanization (3 + 0)*Prerequisite:* URS 100 or Introductory Course in SOC, HIS, ANT — Non U.S.

A survey and examination of major urbanized world regions and the development of urban systems. Emphasis will be on non-Western urbanization.

URS 310-3 Internal Structure of the City (3 + 0)*Prerequisite:* URS 100, URS 200 or permission of the instructor

Analysis of the location, arrangement, and interrelationships between social, economic, and physical elements of the city. The principle focus is on spatial distributions and the interactions between these distributions as they create urban structural patterns.

URS 328-3 Transportation: Issues and Policies (3 + 0)*Prerequisite:* URS 100 or 200, URS 228, or permission of instructor

Involves students in the problems of moving people and goods in urban areas. Transportation networks will be analyzed in terms of individual neighborhoods, social needs and political decision making. Focus of the course will be Denver, Colorado.

URS 330-3 Housing: Issues and Policies (3 + 0)*Prerequisite:* URS 100, 200, or permission of instructor

The focus of this course is on current social and economic issues regarding housing in America's urban areas. Topics covered include housing markets, components of housing costs, housing for low income, aged and minorities, housing standards and land development.

URS 350-3 Emerging Urban Political Systems (3 + 0)*Prerequisites:* Any 6 hours from PSC 300, 302, URS 200 or 210

The course focuses on changes in the nature of urban governmental issues and processes. It includes the political organization of urban sprawl, new towns, exurbs, neighborhoods, regional governments and cities in political transition.

URS 351-3 Community Development and Planning (3 + 0)*Prerequisites:* 9 hours of urban studies, sociology or urban land use

The focus of this course will be planning and community development on a small scale. It will include community and institutional structures, relationships to public policies as well as funding agencies. Students will prepare a community development plan.

URS 371-3 Ethnic Groups in U.S. Cities (3 + 0)*Prerequisites:* URS 100 plus 3 hours of political science, sociology, anthropology or human geography

A social, economic, psychological and spatial investigation of ethnic groups in U.S. cities. Emphasis will be on the development of ethnic consciousness and its implication for economic, political and cultural identity and residential-community maintenance.

URS 380-3 Applied Urban Research Methods (3 + 0)*Prerequisite:* URS 100

A survey course designed to acquaint class participants with practical yet sophisticated methods of conducting applied urban research. Population census materials, archival and government records and other research techniques will be examined and utilized to develop individual and group projects.

URS 389-1-3 Readings in Urban Studies (1-3 + 0)*Prerequisites:* 6-9 hours of urban studies plus permission of instructor and department chair

Provides an opportunity for students with a background in urban studies to pursue study on a specific topic. Will require frequent meetings between student and instructor.

URS 400-1-4 Urban Simulation/Game (1-4 + 0)*Prerequisite:* URS 100 or upper-division standing

Interdisciplinary simulations/games designed to give players experience in role-playing, problem-solving, and decision-making related to current urban problems. A variety of simulations/games will be offered.

URS 410-3 Urban Environmental Perception (3 + 0)*Prerequisites:* Coursework in statistics or research design and 9 hours of urban studies or related fields

A survey and application of selected techniques used in the geographic investigation of environmental perception and cognition. The images and perceptions of various publics will be studied and their value in the activity and travel patterns of urban residents will be discussed.

URS 450-3 Cities of the Future (3 + 0)

The focus of this course will be to identify and evaluate alternate futures for cities. The course will explore the possible futures of urban politics, economics, employment, transportation, and related areas.

URS 451-3 Community Involvement Methods (3 + 0)*Prerequisite:* 6 hours of urban studies or related social science or consent of instructor

This course will examine the rationale for community neighborhood and citizen involvement in federal, state and local programs affecting the quality of urban life. The impact of partnership on physical and social planning efforts will be analyzed through case studies.

URS 471-3 The Urban Elderly: Prisoners of Space (3 + 0)*Prerequisites:* URS 100 plus any combination of 6 hours GEG 132, SOC 105 or SOC 205

As age increases, transportation modes, distance travelled, housing, personal space, shopping patterns and economic situation tend to decrease. This course is an in-depth analysis of the urban elderly as they interact with their shrinking environment.

URS 489-4 Interdisciplinary Seminar (4 + 0)*Prerequisites:* 9 hours in urban studies plus upper-division standing

Truly a team-taught course that will utilize the talents and expertise of several different professors addressing the same topic from their respective viewpoints. In viewing each concentration, three professors from such fields as psychology, land use, sociology, political science, urban studies, or history will jointly teach the course. Each time the seminar is offered a different area of concentration will be stressed.

Women's Studies**WMS 101-3 Introduction: Woman in Transition (3 + 0)***Prerequisite:* Minimum performance standard scores on the reading and writing preassessment placement tests

This course introduces the discipline of women's studies, the historical development of feminist thought, and the social, economic, and technological factors which have led to changing roles for women throughout the world; examines patterns of female socialization and psychological development within a sex/gender system which differentiates and stratifies human beings in the workplace, the law, the media, education, religion, health care, and intimate relationships; and focuses analysis on race and class with particular attention to women of color and non-Western women cross-culturally. (General Studies Course - Level II, Social Sciences)

WMS 113-2 Directed Readings in Women's Studies (1 + 2)

This course permits the student to develop a basic knowledge of the materials and information involved in the discipline of women's studies.

Course Descriptions

Through the selections read, students will develop an overview of the theories, history and scope of the literature in the discipline. This course offers individualized instruction and personal consultation with faculty.

WMS 165-3 (HIS 165) 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 her 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 of these courses. (*General Studies Course - Level II, Historical*)

WMS 218-3 Assertiveness Training (3 + 0)

This class aims to help people develop assertive behavior and learn the difference between assertiveness and aggressiveness, and to teach people how to set, measure, and attain behavioral goals. These goals fall under the general heading of awareness.

WMS 234-1-3 Career and Personal Development (Variable Title) (1-3 + 0)

Prerequisite: WMS 101 or permission of instructor

These courses will aim at self-improvement and career enhancement and will include such titles as: Women and Health, Women and Aging, Career Mobility, and New Directions for Women. Check Class Schedule for each semester's offerings. May be repeated for credit as titles change.

WMS 277-3 (HIS 277) Gender and Communication (3 + 0)

Prerequisite: SPE 101/SPE171 or permission of instructor; ENG 101, 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 of these courses. (*General Studies Course—Level II, Arts and Letters*)

WMS 298-1-3 Cooperative Education Internship (Variable Credit) (0 + 3-9)

Prerequisites: WMS 101, Sophomore standing, and permission of instructor

An entry level work experience in a social service agency, nonprofit organization, or an agency of local, state, or federal government in an area related to women's studies. Supervised by professionals on-the-job in conjunction with MSCD women's studies faculty members. Recommended for minors and contract majors.

WMS 313-3 Advanced Readings in Women's Studies (3 + 0)

Prerequisites: ENG 102 and WMS 101 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 113, but students are not required to have taken WMS 113 previously.

WMS 331-3 (CJC 371) Women and the Law (3 + 0)

Prerequisite: WMS 101 or permission of instructor

Examination of women's legal rights under the American 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 E.R.A. Credit will be granted for only one of these course numbers.

WMS 342-2-3 Women and the Humanities (Variable Title) (2-3 + 0)

Prerequisite: WMS 101 or permission of instructor

Focuses on women in relation to the humanities and covers such topics as: Concepts about Women in Western Civilization; Feminist Creativity; Rediscovered Women Writers; and Autobiographies of Women. Check

Class Schedule for each semester's offerings. May be repeated once for credit as titles change.

WMS 344-3 Women and the Natural Sciences (Variable Title) (3 + 0)

Prerequisite: WMS 101 or permission of instructor

Focuses on women in relation to the natural sciences and covers such topics as Women's Biology; History of Women in Science; and Women and Geography. Check Class Schedule for each semester's offerings. May be repeated once for credit as titles change.

WMS 345-3 Women and the Arts (Variable Title) (3 + 0)

Prerequisite: WMS 101 or permission of instructor

Focuses 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. May be repeated once for credit as titles change.

WMS 346-3 (SOC 322) Women and the Social Sciences (Variable Title) (3 + 0)

Prerequisite: WMS 101 or permission of instructor

Focuses on women in relation to the social sciences and covers such areas as Women and the Family; Women and Addictions; Women in the Criminal Justice System; Domestic Violence; Psychology of Women; History of Feminism; Cross-Cultural Roles of Women; Women and Politics; Race, Sex, and Ethnic Groups.* Check Class Schedule for each semester's offerings. May be repeated once for credit as titles change. (*General Studies Course - Level II, Social Sciences; Multicultural*)

WMS 351-3 Feminist Theory (3 + 0)

Prerequisites: WMS 101 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 "proto-feminist" thinkers of the 17th century, it analyzes traditional theories of "woman's nature." Feminist theory's primary concern is with the humanistic foundations of multi-cultural, 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 Course—Level II, Arts and Letters*)

WMS 367-1-3 Contemporary Issues in Women's Studies (Variable Title) (1-3 + 0)

Prerequisite: WMS 101 or permission of instructor

Objectives vary with course title, but generally focus is on current issues that are constantly changing and developing in this area. Check Class Schedule for each semester's offerings. May be repeated once for credit as titles change.

WMS 398-1-12 Cooperative Education Internship (Variable Credit) (0 + 3-36)

Prerequisites: WMS 101, Junior standing, and permission of instructor

An advanced work experience in a social service agency, nonprofit organization, or an agency of local, state, or federal government in an area related to women's studies. Supervised by professionals on the job in conjunction with MSCD women's studies faculty members. Recommended for minors and contract majors.

WMS 425-1-3 Topics in Women's Studies (Variable Title) (1-3 + 0)

Prerequisite: WMS 101 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. May be repeated once for credit as titles change.

WMS 475-3 Senior Seminar (3 + 0)

Prerequisite: 6 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 contract 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 contract majors and minors and others by permission of the instructor. (*General Studies Course, Level III - Senior Experience*)

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Phillip Boxer, Ph.D., *Emeritus Dean - School of Liberal Arts*

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Milton Chewning, *Professor Emeritus - Aerospace Science*

Gerhardt Clementson, *Professor Emeritus - Computer and Management Science*

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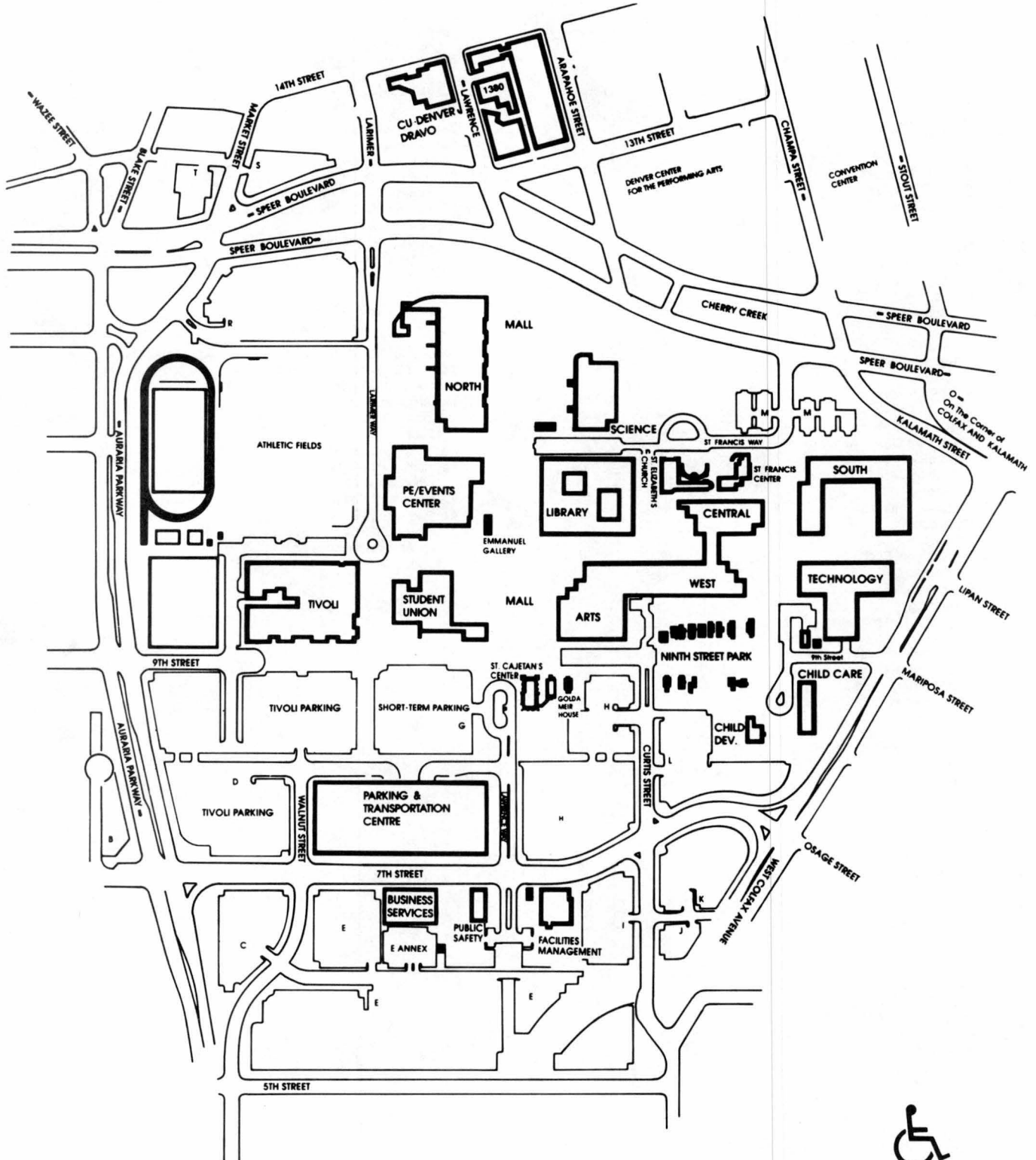
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Metropolitan State College of Denver Auraria High Education Center



NOTES



Metropolitan State College of Denver

Application and Instructions for Admission

HOW TO APPLY FOR ADMISSION

Thank you for applying for admission to Metropolitan State College of Denver. Please read the following instructions carefully. Complete admission requirements can be found in the current *MSCD Catalog*. If you need assistance or have any questions, please call the Office of Admissions and Records at (303)556-3058. Since hand-carried transcripts will not be accepted, please request that all transcripts and any inquiries be mailed directly to the college at the following address: **Metropolitan State College of Denver, Office of Admissions and Records, Campus Box 16, P.O. Box 173362, Denver, Colorado 80217-3362**

ALL APPLICANTS

1. The application should be typewritten or printed in ink. Use your complete legal name. Do not use nicknames. Answer all sections completely.
2. Application deadlines are listed in the current *Class Schedule* or can be obtained by calling the Office of Admissions and Records.
3. You are responsible for notifying the Office of Admissions and Records of any demographic or academic changes before your first enrollment at MSCD.
4. The college classifies applicants into two categories by age: those who are less than 20 and those who are 20 or older. Based on the college's modified open admissions system, each category has its own admissions procedures. For application purposes, the college has designated dates for determining your category:
 - a. If you are applying for the summer or fall semester, your category is determined by the age you will be on September 15 of the year of anticipated enrollment.
 - b. If you are applying for the spring semester, the determining date is February 15.
5. A student will be considered as non-degree-seeking, and the student's file will be incomplete until all credentials are received.
6. The college offers services for disabled students through the Auraria Student Assistance Center. For information, call (303) 556-8387.

FRESHMAN ADMISSIONS PROCEDURE

Applicants Less Than 20 Years of Age

1. Complete and submit the application, along with a \$10 nonrefundable fee, to your high school counselor. Then ask your high school counselor to complete the high school official section and mail directly to MSCD with the application and fee and an official transcript with your most recent grade point average and rank.
2. Arrange to take the ACT or the SAT and have the test scores mailed directly to MSCD. MSCD's ACT test number is 0519, and the SAT test number is 4505.
3. If you have received a GED (General Educational Development) certificate, please have the scores mailed directly to MSCD.

Applicants 20 Years of Age or Older

1. Complete and submit the application with a \$10 nonrefundable application fee to MSCD. Request that your high school mail an official transcript directly to MSCD. This transcript must have your date of graduation.
2. If you have received a GED (General Educational Development) certificate, please have the scores mailed directly to MSCD.
3. No college entrance exams are required.

COLLEGE TRANSFER ADMISSIONS PROCEDURE

Applicants Less Than 20 Years of Age

1. Complete and submit the application with \$10 nonrefundable application fee to MSCD. Request that separate transcripts from each college or university attended, as well as a transcript from your high school, be mailed directly to MSCD. If you have received a GED (General Educational Development) certificate, please have the scores mailed directly to MSCD.
2. Submit test scores from the ACT or the SAT if not included on your high school transcript.
3. An admissions interview is required for students who have less than a cumulative 2.00 ("C") grade point average from all collegiate institutions attended. All credentials are required for the admissions interview.

Applicants 20 Years of Age or Older

1. Complete and submit the application with a \$10 nonrefundable application fee to MSCD.
2. Applicants will be admitted upon indicating on the application for admission that they have graduated from high school or that they have received a General Education Development Certificate (GED).
3. By signing the application for admission, applicants are certifying that they will request either a high school transcript with date of graduation or GED test scores be sent directly to the Office of Admissions and Records. In place of these credentials, college transfer students may have college transcripts which indicate at least 30 semester hours or 45 quarter hours of transferable "C" work, sent directly to MSCD.
4. Until the credential listed above is received, a student will not be permitted to register for a second semester. Applicants who indicate on their application for admission that they are seeking a degree at MSCD will be classified as non-degree-seeking until all required transcripts have been received by the Office of Admissions and Records.

RE-ADMISSION PROCEDURE

1. If a year or more has elapsed since your last attendance at MSCD, complete and submit the application. No application fee is required.
2. If you have attended any collegiate institution since your last enrollment, and you are requesting a transfer evaluation, please request that all transcripts be mailed directly to MSCD.
3. Applicants who are re-admitting after nine years of absence from MSCD are required to resubmit all credentials. Only non-degree-seeking MSCD graduates do not have to resubmit credentials.

INTERNATIONAL ADMISSIONS PROCEDURE

1. Applicants must contact the Office of Admissions and Records if declaring a country of citizenship other than the United States on their application for admission.
2. Applicants holding temporary visas should obtain admissions requirements from the Office of Admissions and Records and complete the Application for International Students instead of this form. Applicants seeking a student (F-1) visa will be issued the U.S. Immigration Form 20 (I-20) if they are academically admissible and have met other minimum requirements for international admission.

IMPORTANT DIRECTIONS: Please read the instructions carefully and supply all information requested. Failure to do so may delay the processing of your application. Please include your new nine-digit zip code to ensure quick and accurate mail delivery.

PERSONAL/DEMOGRAPHIC INFORMATION

1. Please include former name if applicable. If you are a re-admit student and your name has changed, or if you have documents with different names, please give former name(s) and attach a copy of a legal court document or marriage license reflecting the name change.
2. Country of citizenship: If other than U.S.A., please obtain separate information from the Office of Admissions and Records. If appropriate, please indicate your resident alien number and the card issue date in the space provided on the application.

MSCD PLANS

1. Select year and semester of enrollment. If you apply for the summer semester only and wish to continue for a fall or spring semester, you must submit a change of status form with the Office of Admissions and Records and be reconsidered for admission.
2. Select a degree status you plan to follow at MSCD:
 - a. Indicate major field of study in category one or that you are undeclared in category two. Place the appropriate three-letter major code from the list below in the spaces provided.
 - b. The official major or pre-major may be declared when all credentials have been received. Pre-business majors must complete 60 hours with a 2.25 GPA before acceptance into official major. Please see the *College Catalog* for complete requirements. If you are seeking teacher certification, you should contact the Division of Education. You will not be considered as degree seeking until all credentials have been received by the college. Until you are officially considered a degree-seeking student, financial aid, veterans' assistance, and registration priority will be affected.

MAJOR NAME	MAJOR CODE	MAJOR NAME	MAJOR CODE	MAJOR NAME	MAJOR CODE
ACCOUNTING (pre-business).....	ACX	FINANCE (pre-business).....	FIX	MUSIC EDUCATION.....	MED
AFRICAN AMERICAN STUDIES.....	AAS	FIRE SERVICES ADMINISTRATION.....	FSA	MUSIC PERFORMANCE.....	MPR
ANTHROPOLOGY.....	ANT	HEALTH CARE MANAGEMENT*.....	HCM	NURSING**.....	NUR
ART.....	ART	HISTORY.....	HIS	PHILOSOPHY.....	PHI
AVIATION MANAGEMENT.....	AMG	HOSPITALITY, MEETING & TRAVEL ADMINISTRATION.....	HMT	PHYSICS.....	PHY
BEHAVIORAL SCIENCE.....	BHS	HUMAN PERFORMANCE & SPORT.....	HPS	POLITICAL SCIENCE.....	PSC
BIOLOGY.....	BIO	HUMAN SERVICES.....	HSW	PROFESSIONAL PILOT.....	PPT
CHEMISTRY.....	CHE	INDUSTRIAL DESIGN.....	IND	PSYCHOLOGY.....	PSY
CHICANO STUDIES.....	CHS	INDUSTRIAL AND TECHNICAL STUDIES.....	ITS	SOCIAL WELFARE.....	SWF
CIVIL ENGINEERING TECHNOLOGY.....	CET	JOURNALISM.....	JRN	SOCIOLOGY.....	SOC
COMPUTER INFORMATION SYSTEMS & MANAGEMENT SCIENCE (pre-business).....	CMX	LAND USE.....	LUS	SPANISH.....	SPA
COMMUNICATIONS MULTI-MAJORS.....	CMM	LEISURE STUDIES.....	LES	SPEECH COMMUNICATION.....	SPC
COMPUTER SCIENCE.....	CSI	MANAGEMENT (pre-business).....	MGX	SURVEYING & MAPPING.....	SUM
CONTRACT MAJOR or MINOR.....	CON	MARKETING (pre-business).....	MKX	TECHNICAL & INDUSTRIAL ADMINISTRATION.....	TIA
CRIMINAL JUSTICE & CRIM.....	CJC	MATHEMATICS.....	MTH	UNDECLARED.....	UND
ECONOMICS (pre-business).....	ECX	MECH ENGINEERING TECH.....	MET	URBAN STUDIES.....	URS
ELECTRONICS ENGINEERING TECH.....	ELT	METEOROLOGY.....	MTR	*UPPER DIVISION	
ENGLISH.....	ENG	MODERN LANGUAGES.....	MDL	**UPPER DIVISION ONLY FOR R.N.'S	

TUITION CLASSIFICATION

All questions must be answered if you are claiming in-state tuition classification. Failure to supply complete information may result in an out-of-state tuition classification.

SECONDARY EDUCATION

List your high school and graduation date or indicate the state or agency from which you received a GED certificate. If you are currently attending high school, please submit your completed application and application fee to your high school counselor, who will complete this section and return it directly to MSCD. Please request that official test scores be sent directly to the Office of Admissions and Records. If you have graduated from a foreign high school the minimum you are required to submit for evaluation prior to acceptance, is your high school transcript.

POSTSECONDARY EDUCATION

1. List each college/university ever attended. Failure to list a college may result in dismissal and/or loss of credit.
2. Although an applicant's record from several institutions may be summarized on one transcript, official transcripts from **each** institution are required. This is true even though no credit may have been earned at an institution. Students will be considered as degree seeking after all transcripts and a Transfer Credit Evaluation Card have been received.

SIGNATURE

Please read this section carefully so that you understand your responsibilities. It is your responsibility to request official transcripts and to insure that they are mailed directly to the Office of Admissions and Records. Please sign your name in ink. You are responsible for notifying the Office of Admissions and Records of any demographic or academic changes before your first enrollment at MSCD.

IMPORTANT PHONE NUMBERS

Admissions.....	556-3058	Information.....	556-3018
Business Office.....	556-3100	Financial Aid.....	534-6501
Academic Advising.....		Auraria Book Center.....	556-3230
School of Business.....	556-2945	Disabled Student Services.....	556-8387
School of Letters, Arts and Sciences.....	556-3680	Child Care Center.....	556-3188
School of Professional Studies.....	556-3494	Parking and Transportation Services.....	556-3257

ACCREDITATION

Metropolitan State College of Denver is accredited by the following: North Central Association of Colleges and Schools, the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, the Association of University Programs in Health Administration, the National Association of Schools of Music, the National Council for the Accreditation of Teacher Education, the National League for Nursing, and the National Recreation and Park Association. Academic programs are approved by the American Chemical Society, the Colorado Department of Health, the Colorado State Board of Accountancy, the Council for Standards in Human Service Education, the Colorado Department of Education, and the Federal Aviation Administration.

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY

Metropolitan State College of Denver does not discriminate on the basis of race, color, creed, national origin, sex, age, or handicap in admissions or access to, or treatment or employment in, its educational programs or activities. Inquiries concerning Title VI and Title IX may be referred to Dr. Percy A. Morehouse, MSCD Office of Equal Opportunity, Campus Box 63, P.O. Box 173362, Denver, CO 80217-3362, (303)556-2999. Inquiries concerning Section 504 may be referred to Manager, Auraria Office of Disabled Students, Campus Box P., P.O. Box 173361, Denver, CO 80217-3361, (303)556-8387. Or, all inquiries may be referred to the Office for Civil Rights, U.S. Department of Education, 1961 Stout Street, Denver, CO 80294, (303) 844-5695.

OFFICE OF ADMISSIONS
Campus Box 16, P.O. Box 173362
Denver, Colorado 80217-3362
(303) 556-3058



Application for Admission

APPLICATION STATUS (please check one)
Initial application (\$10 fee required) ☐
Re-admission application (no fee required) ☐

This application should be typewritten or printed in ink by applicant. Answer all questions completely. Do not use nicknames. Certain sections on the admission application apply only to applicants less than 20 years of age. These sections are shaded so that they can be easily identified. Please read the instructions carefully and be sure the information supplied is complete. The college offers services for disabled students through the Auraria Student Assistance Center. For information, call (303) 556-8387.

Legal Name _____ Social Security No. _____
last first middle

Mailing Address _____
number and street city state zip code (9 digit)

Home Phone (____) _____ Work Phone (____) _____ Female ☐ Male ☐

Birthdate ____/____/____ Birthplace _____ Age _____
month day year city state

Country of Citizenship _____ If other than U.S., indicate visa type _____ or Resident Alien No. _____
and card issue date ____/____/____ If you are under 22 years of age, provide this information for your parent: Parent's visa type _____
or Resident Alien No. _____ and card issue date ____/____/____

If we will receive transcripts, scores, etc., with a different name, please indicate name _____
last first middle

If you are a re-admit student whose name has changed since your last registration,
give former name and attach copy of legal court documents reflecting change. _____
last first middle

A. Ethnic Information: Please check one.

- (1) American Indian - Alaskan Native ☐ (3) Black/African American ☐ (5) Hispanic ☐
(2) Asian - Pacific Islander ☐ (4) Caucasian/White ☐ (6) Nonresident Alien ☐
not of Hispanic origin (foreign citizen, not a permanent resident)

If you object to the question below, you do not have to answer.

B. Are you a veteran of the U.S. Armed Services? Yes ☐ No ☐ Did you receive an honorable discharge? Yes ☐ No ☐
Dates of active duty (mo/day/yr): From ____/____/____ To ____/____/____

Year and semester of expected enrollment (please check one):

19____ Fall ☐ Spring ☐ Summer ☐ Summer Only ☐

(Applicants who apply for the summer semester only and wish to continue for a fall or spring term must submit a change of status form and be reconsidered for admission.)

Degree Status: Please read the section on declaring your major and degree status under application instructions. Please select the appropriate degree status you will follow at MSCD. Place the appropriate three-letter major code, listed opposite this page, in the *Class Schedule* or *College Catalog*, in the space provided.

Degree Status (please check one):

- ☐ 1. I intend to be degree-seeking at MSCD with a major in ☐ ☐ ☐
☐ 2. I intend to be degree-seeking at MSCD but am undecided (UND) as to major.
☐ 3. I intend to be non-degree-seeking at MSCD and seek teacher certification at MSCD.
☐ 4. I intend to be non-degree-seeking at MSCD.

Are you claiming tuition classification as a Colorado resident? Yes ☐ No ☐

If yes, answer the questions in this section. If you are less than 22 years of age on the first day of classes, please answer the questions in the second column for your (please check one) **parents** ☐ or **legal guardian** ☐. If you checked legal guardian, submit a copy of the legal court decree establishing **guardianship** - not custody.

You and Your Parent or Guardian

Dates of continuous physical presence in Colorado (mo/day/yr) From ____/____/____ To ____/____/____ From ____/____/____ To ____/____/____

Date Colorado driver's license was first issued (mo/day/yr) From ____/____/____ To ____/____/____ From ____/____/____ To ____/____/____

Date current driver's license or CO ID card was issued (mo/day/yr) ____/____/____ ____/____/____

List last 3 years of Colorado motor vehicle registration
if you own or lease the vehicle 19____ 19____ 19____ 19____ 19____ 19____

Date of purchase or lease of any Colorado residential property (mo/yr) ____/____/____ ____/____/____

Dates of military service, if applicable (mo/day/yr) From ____/____/____ To ____/____/____ From ____/____/____ To ____/____/____

List last 3 years Colorado income taxes have been filed as a resident 19____ 19____ 19____ 19____ 19____

List all dates Colorado income tax has been withheld from your paycheck From ____/____/____ To ____/____/____ From ____/____/____ To ____/____/____

Date of marriage (mo/day/yr): Answer this question only if you will be under 22 years of age by the first day of class. The answer will not be used for admission purposes but for tuition classification purposes only. This question is voluntary, and the response will be held confidential. ____/____/____

Nonresident active duty military personnel stationed in Colorado and their dependents, as defined by the military, may request a tuition adjustment to in-state rates. For information, contact the education office of your military base.

Please list current and most recent employment or primary source of support (i.e. parent, especially if you are under 22 years of age) for the past 12 months (mo/day/yr):

Current Employer/Source of Support

City

State

Dates

____ From ____/____/____ To ____/____/____

____ From ____/____/____ To ____/____/____

____ From ____/____/____ To ____/____/____

(for parents/guardian if under 22)

Fill in name, location, and dates of high school currently attending or last attended. If you graduated, request that an official transcript be mailed directly from your high school to the Office of Admissions and Records at MSCD.

Name of High School _____ City _____ State _____ Years of Attendance _____ Month/Year Graduated or Will Graduate _____

If you did not graduate, have you earned a GED certificate? Yes ☐ No ☐

If yes, list name of issuing state or agency: _____ Date (mo/day/yr) ____/____/____
If yes, you must request that an official copy of your GED test scores be mailed directly to the Office of Admissions and Records at MSCD.

If you will be less than 20 years of age, indicate when you took or plan to take one of the college entrance exams (mo/yr): ACT ____/____ SAT ____/____

If currently attending high school, submit completed application to appropriate high school official.

High School Official: Please complete the following: If your high school does not rank students, please check this box ☐

High School ACT/SAT Code No. _____ Student Will Graduate ☐ Has Graduated ☐ Mo ____ Day ____ Yr ____

GPA _____ Rank in Class _____ Class Size _____ For How Many Semesters? _____

High school _____ City _____ State _____

Signature of High School Official _____ Date _____

Have you ever attended, or are you currently attending, any college/university or proprietary school? Yes ☐ No ☐ If yes, list **all** colleges below. Please request that each institution mail official transcripts directly to the Office of Admissions and Records at MSCD. Students receiving veteran's educational benefits must have all previous college credit evaluated at MSCD.

Do you have less than a cumulative 2.00 GPA from all colleges/universities attended? Yes ☐ No ☐ If yes, please indicate the approximate grade point average(s) below:

Name of College or University (list in order of attendance, earliest first)	City	State	Dates of Attendance (mo/yr)	Grade Point Average	Degree Earned (e.g., A.A., B.A., M.A.)
_____	_____	_____	From ____/____ To ____/____	_____	_____
_____	_____	_____	From ____/____ To ____/____	_____	_____
_____	_____	_____	From ____/____ To ____/____	_____	_____
_____	_____	_____	From ____/____ To ____/____	_____	_____
_____	_____	_____	From ____/____ To ____/____	_____	_____
_____	_____	_____	From ____/____ To ____/____	_____	_____

IMPORTANT: ALL STUDENTS: You must provide the following Selective Service information to comply with Colorado State Law (please check one):

- ☐ **I am not required to be registered with Selective Service because (please check one):** I am a female. ☐ I am in the armed services on active duty. (Note: This does not apply to Reserve and National Guard members not on active duty.) ☐ I have not reached my 18th birthday. ☐ I am not a United States citizen ☐ I was born before 1961. ☐ I am a permanent resident of the Trust Territory of the Pacific Islands or the Northern Mariana Islands. ☐
- ☐ **I am registered with the Selective Service.**

I hereby certify that to the best of my knowledge, the information furnished on this application is true and complete and that I have read the instructions contained in this application. I understand that if found otherwise, it is sufficient cause for delay of admission, loss of credit, and/or dismissal. I will notify the Office of Admissions and Records of any demographic or academic changes before my first enrollment and prior to any subsequent enrollment if changes occur.

Student Signature _____ Date _____

Do Not Write Below This Line																							
A1	A	D	P	R	W	H	G	C	M	T	S	1	N	Z	R	NR	R	E	T	P	W	S	V
	A	D	P	R	W	H	G	C	M	T	S	1	N	Z	R	NR	R	E	T	P	W	S	
	A	D	P	R	W	H	G	C	M	T	S	1	N	Z	R	NR	R	E	T	P	W	S	
	A	D	P	R	W	H	G	C	M	T	S	1	N	Z	R	NR	R	E	T	P	W	S	
	A	D	P	R	W	H	G	C	M	T	S	1	N	Z	R	NR	R	E	T	P	W	S	
ACT	mo.			yr.		E			um			rs			M		ea		eg				gt
						R			ss			al			S		C						
EIS	mo.			yr.		V			R			VC			M		TJWE		PV				PM
HSC	mo.			yr.		Rank						Size					GPA						Grad.
GED	mo.			yr.		Avg																	
	tr.			yr.		Att						Com					GPA						Degree
Status	1			2		3			4			5			6		7			8			9