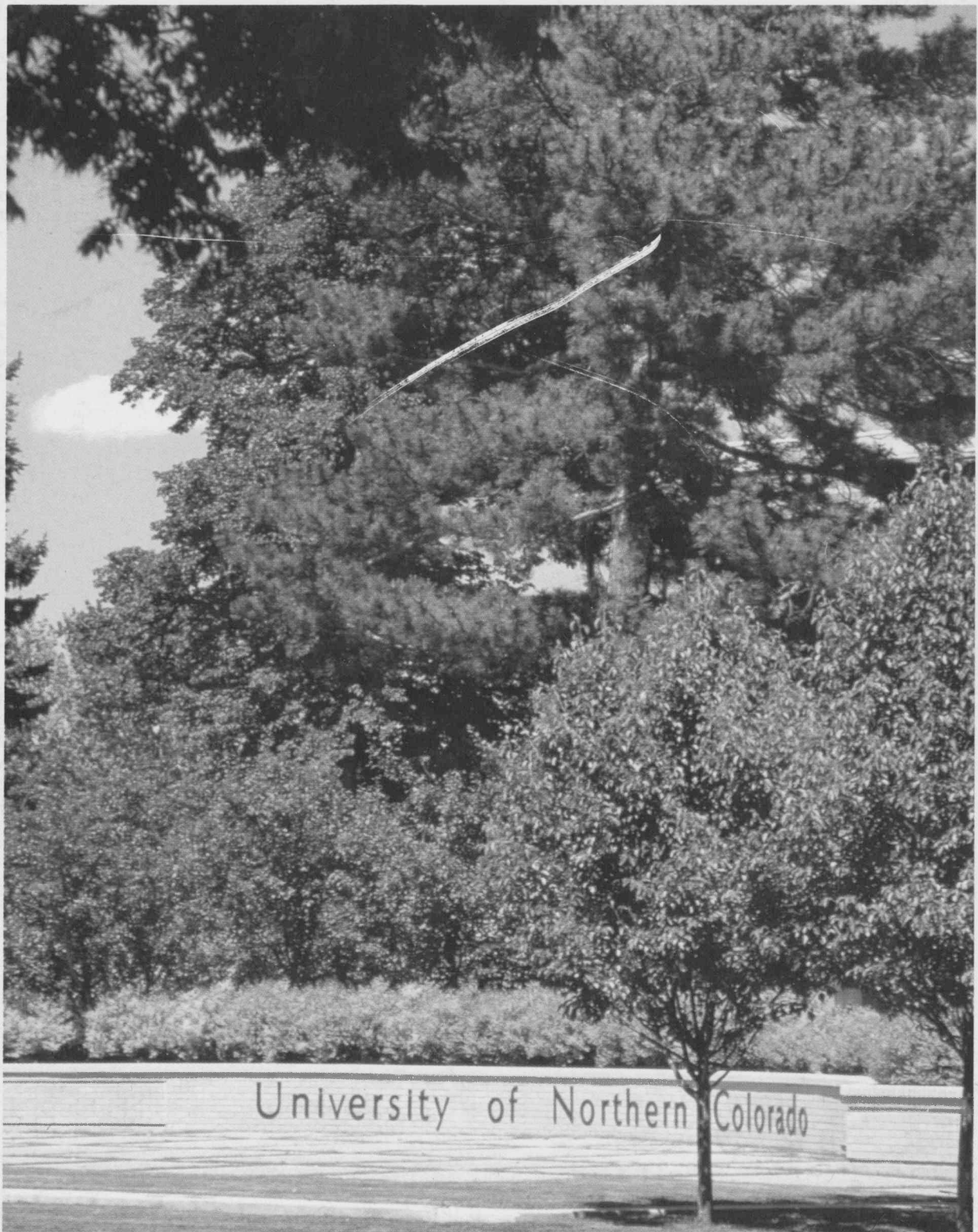
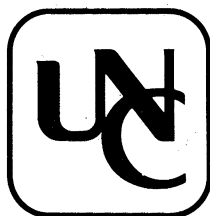


UNIVERSITY OF NORTHERN COLORADO



BULLETIN
1997 - 1998



University of Northern Colorado
Greeley

Undergraduate and Graduate

Bulletin

Effective Dates
September 1, 1997
to
August 31, 1998

Calendar

Summer, 1997

Monday, May 12
Thirteen-Week Session begins
Tuesday, May 13
Residence halls open
Wednesday, May 14
First Six-Week Session begins
Twelve-Week Session begins
Monday, May 26
University closed (Holiday)
Tuesday, June 24
First Six-Week Session ends
Wednesday, June 25
Second Six-Week Session begins
Friday, July 4
University closed (Holiday)
Tuesday, August 5
Second Six-Week Session ends
Twelve-Week Session ends
Friday, August 8
Thirteen-Week Session ends
Saturday, August 9
Commencement

Fall Semester, 1997

Sunday, August 24
Residence halls open
Monday-Tuesday, August 25-26
Late registration
Wednesday, August 27
Classes begin
Monday, September 1
University closed (Holiday)
Thursday-Friday, November 27-28
University closed (Holiday)
Monday-Friday, December 8-12
Final exam week
Saturday, December 13
Commencement

Spring Semester, 1998

Sunday, January 11
Residence halls open
Monday, January 12
Late registration
Tuesday, January 13
Classes begin
Monday, January 19
University closed (Holiday)
Monday-Friday, March 16-20
Spring Break (No classes)
Monday-Friday, May 4-8
Final exam week
Friday, May 8
Commencement (Graduate)
Saturday, May 9
Commencement (Undergraduate)

Summer, 1998

Monday, May 11
Thirteen-Week Session begins
Tuesday, May 12
Residence halls open
Wednesday, May 13
First Six-Week Session begins
Twelve-Week Session begins
Monday, May 25
University closed (Holiday)
Tuesday, June 23
First Six-Week Session ends
Wednesday, June 24
Second Six-Week Session begins
Friday, July 3
University closed (Holiday)
Tuesday, August 4
Second Six-Week Session ends
Twelve-Week Session ends
Friday, August 7
Thirteen-Week Session ends
Saturday, August 8
Commencement

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The calendar is a projection of the course of events of the 1997-1998 academic year and represents the best judgment of the administration and staff. It is subject to change due to forces beyond the control of University employees or as deemed necessary by the University staff in order to fulfill educational objectives.

The faculty and staff of the University of Northern Colorado reserve the right to terminate or modify program requirements, content, and the sequence of program offerings from semester to semester for educational, operational or financial reasons that are deemed sufficient to warrant such actions.

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Introduction

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The University of Northern Colorado is a multipurpose institution offering a wide range of graduate and undergraduate degree programs in five academic colleges: Arts and Sciences, Business Administration, Education, Health and Human Sciences, and Performing and Visual Arts. The College of Continuing Education extends the academic programs statewide.

The University offers more than 2,000 academic courses annually and enrolls about 10,000 students.

UNC is located in the city of Greeley, Colorado, about one hour north of the city of Denver and one hour east of Rocky Mountain National Park. Greeley is a mid-sized city of 65,000 people (counting UNC students).

The 236-acre UNC campus has two distinct, adjacent parts. Both have residence halls and classroom buildings. The central campus features tree-lined, older buildings while the west campus is distinguished by modern high-rise buildings. The College of Continuing Education is located in downtown Greeley at 822 Seventh Street.

A Short History

On April 1, 1889, the governor of Colorado signed the bill creating the State Normal School to train qualified teachers for the state's public schools. Greeley citizens raised the necessary money for the first building, and the cornerstone was laid on June 13, 1890. The school opened its doors on October 6 with a staff of four instructors and 96 students. Certificates were granted upon the completion of a two-year course.

In 1911 the school's name was changed to Colorado State Teachers College by the state legislature. The college was then offering four years of undergraduate work and granting the Bachelor of Arts degree.

In 1935 the name of Colorado State College of Education was adopted to recognize the fully developed graduate program, which was started in 1913. Early in 1957 the state legislature approved shortening the name to Colorado State College. Again to recognize the further growth of programs and offerings, in 1970 the name was changed once more, this time to the University of Northern Colorado.

Mission, Values, Purposes and Goals

The following Mission, Values, Purposes, and Goals statement was unanimously adopted by the Board of Trustees on March 8, 1996.

Mission. The mission of the University of Northern Colorado is to develop well-educated citizens and to improve the quality of life in the state and region through teaching, learning, the advancement of knowledge and community service.

Description. The University of Northern Colorado is a general baccalaureate and specialized graduate research university with a statutory mission in teacher education. Academic programs are offered through the colleges of Arts and Sciences, Business Administration, Education,

Health and Human Sciences, Performing and Visual Arts and the Graduate School. Programs are extended state-wide through the College of Continuing Education. The University provides a full range of student support services and recreational opportunities. The James A. Michener Library provides information resources through sophisticated technology and established collections.

The University offers a broad range of undergraduate programs in the arts, sciences, humanities, business, human sciences and teacher education. The mix and quality of UNC programs provides a unique resource to Colorado. All students are required to study in the liberal arts tradition, which prepares them to think and act responsibly in a dynamic, diverse and global society. Multicultural content and interdisciplinary programs enrich academic experiences. University curricula are designed to improve students' skills in critical thinking, communication, and problem solving.

As a Carnegie Doctoral I Institution, the University of Northern Colorado's graduate programs emphasize advanced scholarship within a discipline or acquisition of professional abilities for career advancement. Graduate education includes a variety of master's degrees that complement the University's mission and purposes and a select number of doctoral programs that emphasize applied scholarship and research, clinical practice, pedagogy or performance. Consistent with UNC's purpose as a specialized graduate research university, doctoral degrees lead to professional leadership roles in education or related fields.

The University of Northern Colorado has a campus-wide commitment to the preparation of teachers. Programs needed by professional educators are offered throughout the state. As the primary institution for undergraduate and graduate teacher education in Colorado, the University takes pride in its special state-wide mission for leadership in professional education.

The University provides services that support equal learning opportunities for all students. Learning occurs in an environment characterized by small classes taught by full-time faculty. Teaching is the highest priority. UNC professors, at both the graduate and undergraduate levels, subscribe to a teacher/scholar model in which excellence in instruction is complemented by activities in scholarship and service. Support for the continuous improvement of teaching, learning, scholarship and service is provided through University programs, policies and practices.

Values. The University of Northern Colorado believes that its distinctive service to society can only be offered in an atmosphere that is open, respectful, and critical. For this reason, the University is committed to promoting an environment in which:

- excellence is sought and rewarded.
- teaching and learning flourish.
- there is respect for diversity of thought and culture, consistent with the spirit of rigorous criticism.

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CAMPUS OPERATOR 970-351-1890	Campus Recreation 970-351-2020	Continuing Education 970-351-2944	Laboratory School 970-351-2321	Native American Student Services 970-351-1125	Student Financial Resources 970-351-2502
Academic Advising Center 970-351-1391	Career Services 970-351-2127	Dean of Students 970-351-2796	Intercollegiate Athletics 970-351-2534	Police 970-351-2245	Student Health Center 970-351-2412
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Alumni Relations 970-351-2551	Cesar Chavez Center 970-351-2424	Evening Division 970-351-1931	Michener Library 970-351-2671	Student Activities 970-351-2871	Women's Resource Center 970-351-1492
Asian/Pacific American Student Services 970-351-1976	Counseling Center 970-351-2496	Information Services (Computing) 970-351-2341	Multicultural Affairs 970-351-2266	Student Family Apartments 970-351-2570	

- the intellectual freedoms of teaching, learning, expression, research, and debate are preserved.
- all people have equal opportunity.
- members of the community conduct themselves in a manner that merits trust.

Recognizing that education adds meaning to life, and mindful of the individuality of each student, UNC pledges to maintain the spirit of concern for students that distinguishes it among public universities.

Purposes and Goals. The University of Northern Colorado is committed to the following purposes and goals.

To prepare a well educated citizenry whose understanding of issues enables them to be contributing members of a dynamic, diverse and global society.

1. Students will acquire a solid foundation of general knowledge in the liberal arts and sciences.
2. Students will develop a variety of critical thinking and problem solving skills along with a disposition for continuous learning.
3. Undergraduate students will engage in research to master methods of inquiry.
4. Students will develop an appreciation for cultural diversity, political values, artistic expression and a healthy life through the University's educational, cultural, social and recreational programs.
5. Students will develop life-long habits of scholarship and service.
6. The University will structure academic curricula, student advising and support services to facilitate timely student progress.

To prepare undergraduate students in specialized fields of study.

1. Students will acquire depth of knowledge in a specialized scholarly discipline.
2. Students will acquire the knowledge and skills that prepare them for careers and/or advanced scholarly work.
3. Students will master methods of inquiry acquire deeper understanding of their discipline.
4. Students will study in programs informed by appropriate professional standards and practice.

To prepare teachers and other education professionals.

1. The preparation and professional renewal of educators will be a campus-wide responsibility.
2. Graduates of professional teacher education programs will meet state standards for licensure.
3. Programs for the professional renewal of educators will be informed by state standards for licensure.

4. Selected master's and specialist degree programs which serve education professionals will be accessible state-wide.

5. The University, in partnership with K-12 schools, will test innovations in education and disseminate the results.

6. The University will work collaboratively with K-12 schools on the simultaneous renewal of schools and professional education.

7. Graduates of professional teacher education programs will acquire an appreciation for and ability to teach in an increasingly diverse population.

To fulfill its role as a specialized graduate research university.

1. The University's specialized research mission will foster scholarship among its graduate and undergraduate students and faculty.

2. The University will encourage applied research that benefits the State of Colorado.

3. Doctoral students will engage in scholarly activity and creative endeavors to advance the knowledge and practices of the discipline.

4. Master's students will acquire knowledge and skills consistent with the professional preparation and standards of the discipline.

5. Doctoral research in education will emphasize scholarship on issues affecting education policy, teaching and learning processes and/or school leadership practices.

6. The University will support faculty efforts to obtain extramural funding to finance research, create learning opportunities for students and support students financially.

To serve as a resource to the state.

1. The University will serve the State of Colorado through applied research and the professional expertise of its faculty, staff and students.

2. The professional service activities of faculty, staff and students will be a resource to the community, state and region.

3. The professional activity of faculty, staff and students, beyond the boundaries of Colorado, will enhance the national and international reputation of the state.

4. The intellectual and creative activities of faculty, staff and students will contribute to the enrichment of the community.

Accreditation and Affiliation

Since 1916, the University has been fully accredited by the North Central Association of Colleges and Schools.

Various academic programs currently have special accreditation by the following: American Assembly of Collegiate Schools of Business, National University Continuing Education

Association, American Chemical Society; American Psychological Association; American Speech-Language-Hearing Association; Board of Examiners, Speech Pathology, and Audiology; Colorado Department of Education; Colorado State Board of Accountancy; Colorado State Board of Nursing; Council for Accreditation of Counseling and Related Educational Programs; Council for Education of the Deaf; Council on Education for Public Health; Council on Rehabilitation Education; National Association of Schools of Music; National Council for Accreditation of Teacher Education; The American Dietetic Association; the National League for Nursing; National Recreation and Park Association/ American Association for Leisure and Recreation; and the Society for Public Health Education.

The institution currently holds membership in the American Association of State Colleges and Universities, National Association of State Universities and Land Grant Colleges, American Association of Colleges for Teacher Education, Teacher Education Council of State Colleges and Universities, the Renaissance Group, the Council of Graduate Schools in the United States, the Western Association of Graduate Schools, the American Assembly of Collegiate Schools of Business, and other educational organizations.

Student Academic Resources

The College of Continuing Education

extends UNC's quality educational opportunities beyond the campus.

Continuing Education provides access to complete graduate degree programs in education throughout the state. Classes meet during convenient evening and weekend hours, and most students can complete programs in 18-24 months of study. Degrees earned off campus carry full academic recognition and are no different from degrees, certifications, and licensures earned on the campus.

Hundreds of graduate and undergraduate courses providing career development, professional development, and college credit are offered at locations throughout Colorado. Contract classes are arranged by school districts and agencies at job-site locations.

Through independent study credit courses from University academic departments offer the flexibility for students to study at home or office.

Special professional and certificate programs, provided in workshop format, focus on skills for working professionals. These are offered in Greeley and throughout the state for non-credit or Continuing Education Units (CEUs).

Continuing Education's Educational Technology Center extends academic technological capabilities to the community from the College's downtown center.

Evening Division On Campus. One-sixth of the courses within the UNC curriculum are offered between the hours of 4 and 10 pm, Monday through Thursday, and on weekends.

Information (Computing) Services provides telecommunications, computing resources, software training, technical support, and computer sales to the entire campus community. Tasks include the design and management of the campus network infrastructure (UNCnet). Students, faculty, and staff can obtain Email accounts through Information Services; its modem pool provides access to local and Internet resources (Slip/PPP).

Its central facility in Carter Hall houses a large mainframe, several minicomputers, and a micro computer laboratory. The usual computer languages are provided along with statistical packages and Phoenix, a computer-assisted and computer-managed instruction package. Additional equipment and student computer labs are strategically placed throughout the campus. Microcomputers (Apple and IBM) and Phoenix terminals are located in various buildings on campus.

Laboratory School. The Laboratory School offers a comprehensive pre-kindergarten through grade-12 program. The School's approximately 600 students represent all socio-economic levels in the Greeley community. The Laboratory School serves as a research and development center and as a teacher development center in support of UNC's teacher education program. Students do observations and clinical teaching at this site.

Summer Session. For more than 100 years, the University has hosted a nationally recognized summer session. An integral part of the academic program, it allows students to accelerate completion of degree programs or come to the Greeley campus for professional development and renewal.

Scheduled from mid-May to early August, the summer session provides instruction in various course formats lasting from a few days to 13 weeks. Many of the same courses offered throughout the year are available, as well as special summer institutes and workshops, many featuring prominent lecturers.

The Summer/Evening Division, located in the Registrar's office, provides services to summer and evening students, and assists the campus community in summer/evening programming.

University Libraries. The **James A. Michener Library**, named for one of America's most popular authors (a UNC alumnus and a faculty member), maintains a primary collection of approximately 1.5 million units of hardbound volumes, periodicals, monographs, government documents, archival materials, filmstrips, slides, maps, software programs, videos, and microforms. Opportunities to borrow materials are available to all Colorado citizens. Services include bibliographic instruction, interlibrary loan, reference, circulation, reserves, extended-campus programs, and access to information via CD-ROM and on-line formats.

The traditional card catalog has been replaced by an on-line Public Access Catalog through the Colorado Alliance of Research Libraries. In addition to the holdings of the UNC libraries, this system provides access to the collections of more than 100 libraries throughout the country, including the major research libraries of Colorado, as well as indexed access to more than 3 million journal articles and numerous databases, plus full-text access to a major encyclopedia.

Through special arrangements, UNC students may borrow library materials from any state-supported college or university in Colorado, the University of Denver, and the Denver Public Library. The Interlibrary Loan Service obtains library materials for UNC students and faculty from within the state and nation as well as from foreign libraries. Special services are available for handicapped students, including the Beyond Sight Computer System for the blind and visually impaired.

The Music Library, with comprehensive holdings (including scores and recordings) selected for music students, is scheduled to move into a new building next to Frasier Hall during fall semester, 1997.

The **Laboratory School Library**, located in Bishop-Lehr Hall, provides approximately 27,000 volumes plus additional learning media focused on literature for children and young adults.

Other Student Resources

Campus Recreation

The Campus Recreation Center is the focal point for all recreation, intramural, club sports, fitness, and wellness programs available to the University community. The Center has five basketball courts, seven volleyball courts, three racquetball courts, a climbing room, a running track, a cardio/weight training area, meeting rooms, an aerobics room, and is attached to the swimming pool in Butler-Hancock Hall.

Intramural sports total more than 25 with hundreds of teams formed by residence halls, fraternities, and sororities, and independent groups. Sports are offered to men's, women's, and co-ed teams.

Club sports include lacrosse, men's and women's rugby, racquetball, shotokan karate, men's soccer and men's volleyball.

Housing/Dining

All Residence Life programs seek to help students succeed in their academic pursuits, as well as their transition to college life.

Thus, Residence Life provides economical and convenient accommodations for more than 3,000 graduate and undergraduate students and families. All residence halls and apartments are managed by professional staff who strive to provide a comfortable living environment conducive to academic success.

The Residence Hall Association (RHA) encourages students to take an active role in hall living and academic and social programming. Residence Life Academic Centers offer 24-hour computer labs, peer tutoring, and study sessions as well as theme houses ranging from an emphasis on quiet lifestyle to college interest to promotion of a global perspective of community living.

Central Campus halls, Belford, Sabin, Snyder, Tobey-Kendel, Wiebking, and Wilson, are all located within a five-minute walk from the University Center. These six halls house 750 students. Residents are required to carry a meal plan.

West Campus residence halls house more than 2,000 students in two large residence halls and two apartment complexes. West Campus classroom and sports buildings are within a five-minute walk.

Harrison and McCowen Halls offer four-person suites with two bedrooms. Harrison has private baths connecting bedrooms. McCowen has vanity areas connecting bedrooms with community bath facilities on each floor. Both halls are coed. Harrison Hall has specially designed rooms for students with disabilities. Residents are required to carry a meal plan. Air-conditioned dining rooms adjoin each facility.

Turner Hall is an air-conditioned, 13-story coed apartment complex. Most apartments accommodate four students with a living-study room, private bath, and two bedrooms. Residents are required to carry a meal plan.

Lawrenson Hall is limited to students who are at least 20 years of age or who have lived in college/university residence halls at least two semesters. It is a 17-story coed complex with one floor reserved for graduate and re-entry (minimum age 25) students. Some efficiency units are available for two persons; two-bedroom units accommodate four students. Each apartment is furnished and has a living-dining area, private bathroom, bedroom(s), and kitchen. This facility is air-conditioned. Meal plans may be purchased for use in any dining room.

Student Family Apartments at 509 18th Street are within a five-minute walk of Central Campus. These apartments accommodate families of up to five persons. One apartment resident must be registered or enrolled for at least 6 hours each semester. The 93-unit complex provides economical living with community

facilities including a playground, individual storage units, recreation room, and laundry facilities. Apartments include furnished or unfurnished units with all utilities (except phone). A limited number of apartments for physically-challenged students are available.

Dining on Campus. Students may choose from a wide variety of meal plans from award-winning UNC Dining Services. Three dining locations and Arnie's Snack Shop in the University Center offer a variety of menu selections. Gourmet to Go is available at all residential units. Freshmen under age 20 and living on campus are required to carry a full meal plan (19 meals per week). UNC Dining Services, the largest student employer on campus, provides a variety of job opportunities from delivery person to student supervisors and catering staff.

Intercollegiate Athletics

Men's and women's teams compete in the NCAA, Division II. Intercollegiate sports include baseball, football, men's and women's basketball, women's soccer, women's swimming, men's and women's tennis, men's and women's track and field, men's and women's golf, women's cross country, volleyball, and wrestling. Athletically-related financial aid, based upon athletic ability and academic eligibility, is available in all intercollegiate sports.

Student Activities

The Student Activities office provides opportunities for students to gain valuable experience in planning and carrying out activities and programs, meet new and interesting people, and participate in specific activities like the following that often have a lasting effect on both the campus and the individual.

Chartered student clubs and organizations — 138 in all — include academic societies; international, religious and departmental groups; and social and honorary organizations. Some clubs have offices located in the Student Activities Area and every club has its own mailbox in the area.

The Community Services office provides students with the opportunity to volunteer in philanthropic activities throughout Weld County. Individuals or clubs and organizations can use the office as a resource when planning volunteer activities.

The Drug Prevention/Education Program facilitates healthy lifestyle choices by working with individuals, campus departments and organizations, along with the Greeley community, to provide programs that educate students and support healthy choices about alcohol and other drugs and that make assistance referrals.

Graphic Services gives students an opportunity to commission a student artist to develop promotional materials, brochures, and signs at a nominal cost.

Greeks recognized by the University include chapters of nine national fraternities and five national sororities. The fraternities are Alpha Phi Alpha, Delta Chi, Delta Tau Delta, Delta Upsilon, Omega Psi Phi, Sigma Alpha Epsilon, Sigma Chi, Sigma Pi and Tau Kappa Epsilon. The sororities are Alpha Delta Pi, Alpha Phi, Alpha Sigma Alpha, Delta Zeta, and Sigma Kappa.

International Student Exchange provides students with an opportunity to study in another country for up to one full academic year for very affordable rates. These students are able to make academic progress toward graduation by working with the Exchange office and their academic advisors.

The Special Projects office also provides a co-curricular transcript, leadership conferences, the Family Association, and a new student mentor program.

The Student Media Corporation oversees UNC student publications. *The Mirror*, the student newspaper, is published three times a week.

The Student Representative Council (SRC), the governing body of the students at UNC, provides a voice for students on campus and oversees

several student services, for example, Center for Personal Education, Legal Services, Off-Campus Housing, Center for Alcohol Resources and Education for Students, National Student Exchange and Resume Service.

University Program Council provides much of the diverse entertainment on campus for students. This student-run, student-funded group sponsors lectures, movies, comedians, concerts, and other special events at low or no cost to students.

Student Support Services

Every student has specific and changing needs for emotional, physical, and social support or assistance that must be met to fulfill personal and academic goals. UNC provides a comprehensive range of support services, primarily through its Division of Student Affairs.

The Academic Advising Center provides several services to undergraduates: assistance and advising for undeclared majors and special populations in their transitions to academic majors; increased academic support and monitoring through an intensive advising program; help for individuals experiencing academic difficulties; administration of the Fresh Start programs for freshmen and continuing students; and orientation for new students and their parents/spouses. Qualified professional staff and peer advisors also provide students, faculty, and staff with information regarding general education requirements, academic policies and procedures, and referral assistance. This office monitors the academic standards established by faculty, suspends those students who fail to meet those standards, and coordinates re-admission after suspension.

The Accounting Services department

(Accounts Receivable, Loans Receivable, Collections and the Cashier's office) sends bills and collects tuition, fees, room-and-board, and other student-related charges

The Admissions office provides information and assistance to potential new undergraduate students. New freshmen, as well as undergraduate students transferring from other colleges and universities, should contact this office. (Prospective graduate students should contact the Graduate School.)

Career Services provides current students and alumni the opportunity to explore educational and occupational options, as well as the preparation for entry into the world of work. Its four major service areas are career counseling, career-experience programs, testing service and employment assistance. Its staff also provide more than 100 workshops and presentations annually on such topics as: career planning, resume writing, interviewing skills, and job search strategies.

The Center for Adult Student Services (CASS) addresses the complex needs of adult students — those who have multiple responsibilities (parenting, working, etc.) while attending school and those who are attending UNC after a significant period of time out of school. The Center provides information and referral services, problem-solving, support, and comprehensive programming.

The Counseling Center provides psychological services to UNC students. In addition to individual and group counseling, the Center provides biofeedback training and test-anxiety management programs.

The Dean of Students office serves as a University-wide problem-solving, information and referral service. Students who withdraw from all their classes initiate the process in this office. The dean coordinates a recognition and awards program and deals with academic misconduct and discipline.

The Disability Access Center supports students with documented physical and learning disabilities with access, accommodations and advocacy. Services, which must be requested in advance, include assistance in obtaining notetakers, interpreters, test administrators, readers, adaptive computer training, informal counseling, learning-strategy workshops, and TTY. The Center can

assist students with specific needs for transportation and orientation training. Student organizations include one for students with disabilities (PRIDE) and a support group for students with hidden disabilities.

International Student Services provides support through ongoing orientation, advising, cultural, social and educational activities for students from other countries. The office offers services related to immigration and cross-cultural programming for the entire university community.

The Office of Multicultural Affairs coordinates the programs of UNC's cultural centers, the Center for Human Enrichment and ethnic student services. Centers and services include:

Asian/Pacific American Student Services: provides programs, cultural events, a resource center, support and academic services for Asian/Pacific students.

Center for Human Enrichment (CHE): provides academic advising, skill development classes, tutoring, and personal and career advising to referred students. The CHE Learning Center offers computer, tutoring and study skills workshops.

Cesar Chavez Cultural Center: provides cultural, social and academic support to Hispanic students, as well as programs and cultural events throughout the year.

Marcus Garvey Cultural Center: provides cultural, social and academic support to African-American students, as well as programs and cultural events throughout the year.

Native American Student Services: provides programs, cultural events, a resource center, support and academic services for Native American students.

The Registrar and Records office provides tuition classification, registration, maintenance of academic records and transcripts, and performs the graduation check for undergraduate students. This office also answers questions for undergraduate students about University policies and procedures. Graduate students with questions regarding University policies and procedures should contact the Graduate School.

The Student Financial Resources office administers and distributes aid in the form of loans, grants, scholarship and employment to help students meet college costs (tuition, fees, books, food, housing, and transportation).

The Student Health Center provides a variety of medical and nursing services, emphasizing preventive medicine, first aid, and specific referrals for health care. Appointments can be scheduled with physicians, nurse practitioners, nurse specialists, and mental health professionals. The center manages a Certified Drug Outlet and is fully accredited by the Accreditation Association for Ambulatory Health Care, Inc.

The Visitors Center in the Admissions office provides campus tours Monday through Friday, four times daily. The prospective student should contact this center to arrange a visit to a residence hall, make an appointment with an admissions officer, visit the financial aid office, or schedule (two weeks in advance) an appointment with a professor in his or her proposed field of study.

The Women's Resource Center provides educational programs, speakers, performers, resources and opportunities for students interested in women's issues and other social issues.

University Center. Located at the corner of 10th Avenue and 20th Street, the community center of the campus provides cultural, educational, social, leisure, recreational, and co-curricular activities for the University community and guests.

The UC houses the Academic Advising and Registration centers and is the home-base for campus clubs and organizations.

Several merchants serve the campus community on the UC mall including several food vendors, the University Bookstore and Copy Center, a travel center, convenience store, hair salon, video game room, and a campus technology center and computer store.

Lounges, meeting rooms and other facilities are available. The University Center hosts an exceptional range of events and programs with attendance approaching 200,000 annually.

Other Special Resources

Academic Technology Services provides consultation, production and other services to support the academic staff in using technology in direction instruction and research. Among its services are assisting faculty in creating original teaching material, distance-education program planning and teleconferencing. ATS also operates the University's on- and off-campus cable television distribution systems

Alumni Relations provides the link between the University and its graduates, offering news and information of other graduates and current campus events and coordinating the efforts of chapters throughout the country.

University Police Department (UNCPD), the campus law enforcement agency, is staffed by professional, full-time, state-certified peace officers. This office is responsible for the police and security patrol 24 hours a day, seven days a week. Duties include traffic and parking enforcement, all emergency medical calls, as well as criminal investigations. The UNCPD is accredited by the Colorado Association of Chiefs of Police on professional standards.

Costs, Payment, Financial Aid

9 Costs

10 Payment

11 Financial Aid

Costs

In-State and Out-of-State Classification.

Students who are classified as in-state are permitted to enroll in the University at a significantly lower tuition rate because the University is assisted by the taxpayers of Colorado in addition to the student tuition and fees. The determination of a student's tuition status is provided for under State Law Title 23, Article 7, Colorado Revised Statutes 1988 Repl. Vol., 1994 Supplement.

A person who has been domiciled in Colorado for one year or more immediately preceding registration is eligible for in-state tuition classification. A domicile is a person's true, fixed and permanent home and place of habitation. It is the place where the student intends to remain and that she/he expects to return when she/he leaves, without intending to establish a new domicile elsewhere. It differs from the notion of residence or mere physical presence within the state. A person may have several places of residence, but may have only one true domicile at a given time.

A person is capable of establishing a Colorado domicile only if she/he is 22 years of age or if she/he has been emancipated. Evidence of emancipation includes the person's ability to meet all financial obligations including the cost of education, along with an affidavit from the student's parents stating their relinquishment of any claim or right to the care, custody and earnings of the minor.

Evidence that a Colorado domicile has been established includes the observance of all mandatory duties imposed on domiciliaries. State requirements concerning auto registration, driver's license and payment of state income tax must be met for the full one-year period.

A student's tuition classification is determined before or at the time of registration. If at a later date, the student thinks the classification is no longer correct, she/he may petition for a change in tuition classification. Petitions must be submitted to the Registrar's office no later than the first day of classes for the given school term that the student desires a change in classification. Any student who is denied in-state classification after petitioning may appeal that decision in writing to the Tuition Classification Appeals Committee. The appeal must be submitted to the Registrar's office no later than 10 days after the denial has been sent to the student. The decision rendered by the Tuition Classification Appeals Committee is the final University determination.

Petitioning for in-state tuition classification requires the student to complete a detailed form available in the Registrar's office. This form and other relevant information will be reviewed and a decision rendered in accordance with the state law and authorized procedures.

Active duty Armed Forces personnel and their dependents stationed in Colorado on a permanent change-of-station basis may contact the Registrar's office for information regarding qualifications for the lower in-state tuition rates.

Rates

All rates quoted in this Bulletin are approved by the Board of Trustees and are subject to change.

The following rates relate to the 1996-97 academic year. Rates for the 1997-98 academic year, which begins with fall semester 1997, are not available as of the publication of this document.

Updated information about tuition and fees is available from Accounts Receivable after June 15 of each year.

Undergraduate/Graduate Student

Definitions. A student is considered to pay undergraduate tuition rates if he or she has not previously earned a baccalaureate degree. A student is considered to pay graduate tuition rates if he or she has previously earned a baccalaureate degree.

1996-97 In-State Tuition (Colorado Resident Status)

Per Semester Credits Taken	Undergraduate	Graduate
8.9 credit hours or less, tuition per credit hour	\$106	\$126
9-18 credit hours, total tuition (full-time enrollment)	\$957	\$1,132
Surcharge per credit hour for credits above 18 hours	\$106	\$126

1996-97 Out-of-State Student Tuition (Not Qualified for Resident Student Status)

Per Semester Credits Taken	Undergraduate	Graduate
8.9 credit hours or less, tuition per credit hour	\$468	\$498
9-18 credit hours, total tuition (full-time enrollment)	\$4,208	\$4,479
Surcharge per credit hour for credits above 18 hours	\$468	\$498

TUITION AND FEES ARE CALCULATED ON THE TOTAL CUMULATIVE HOURS THAT A STUDENT IS ENROLLED IN EACH ACADEMIC TERM.

Students auditing a course (taking it for no credit) are required to pay the same tuition and fees required when the course is taken for credit.

Contacts in This Chapter

Accounts Receivable 970-351-2201	Dean of Students 970-351-2796	Registrar and Records 970-351-2231	Residence Life 970-351-2721	Student Financial Resources 970-351-2502 Voice Response 970-351-2825, Service Code 3	University Controller 970-351-2237
Continuing Education 970-351-2944	Dining Services 970-351-1967	Registration Center 970-351-2521	Student Employment 970-351-2628		

1996-97 General Fees

Per Semester

8.9 hours or less, per credit hour

\$ 26

9 or more credit hours

Student service fees

\$232

Health insurance fee

\$298

Technology Fee per credit hour

\$ 3

Recreation Building Center fee

5.9 hours or less, per credit

hour

\$ 7.80

6 hours or more credit hours

\$ 46

Optional CoPIRG fee*

\$ 4

*The CoPIRG fee may be waived by the student at the time of registration.

General University, student and health service fees are committed to support essential student activities and programs, the Student Health Center and the Student Representative Council. Every student must pay these fees each semester, whether or not she/he makes use of the privileges and activities underwritten by the fees. However, student service fees for full-time students enrolled in the summer session may be set at a rate lower than that charged during the regular academic year.

Tuition and fees for classes taken through the College of Continuing Education will differ from and are in addition to on-campus charges and are subject to the Colorado Commission on Higher Education Extended Studies policies. Fee information is available from the College of Continuing Education.

Residence Life

The University operates eight residence halls and three apartment complexes. Rooms and apartments hold two, three or four persons per unit. Freshmen under age 20 who live on campus are required to carry the breakfast, lunch, and dinner (Monday through Sunday) meal plan. Brunch replaces breakfast and lunch on Saturday and Sunday. All other non-freshman residents of Central Campus, McCowen Hall, Turner Hall and Harrison Hall will be assigned a full meal plan, but may re-contract for the breakfast, lunch and dinner (Monday through Friday) meal plan or the lunch and dinner (Monday through Sunday) meal plan. The deadline for re-contracting for the lesser meal plan is the drop/add deadline for the semester.

The following rates relate to the 1996-97 academic year. Rates for the 1997-98 academic year, which begins with fall semester 1997, are not available as of the publication of this document.

Semester Room and Board Rates

Freshmen Under Age 20

Breakfast, Lunch and Dinner

(Monday through Sunday) Meal Plan

• McCowen, Wilson, Wiebking, Belford, Tobey-Kendel, Sabin, Snyder Halls (\$1,045 room + \$1,090 board)	\$2,135
• Harrison Suites (\$1,072 room + \$1,090 (board)	\$2,162
• Turner Apartments (\$1,125 room + \$1,090 board)	\$2,215

<i>All Other Student Residents Breakfast, Lunch and Dinner (Monday through Sunday) Meal Plan</i>	
• McCowen, Wilson, Wiebking, Belford, Tobey-Kendel, Sabin, Snyder Halls (\$1,045 room + \$1,090 board)	\$2,135
• Harrison Suites (\$1,072 room + \$1,090 board)	\$2,162
<i>Breakfast, Lunch and Dinner (Monday through Friday) Meal Plan</i>	
• McCowen, Wilson, Wiebking, Belford, Tobey-Kendel, Sabin, Snyder Halls (\$1,045 room + \$952 board)	\$1,997
• Harrison Suites (\$1,072 room + \$952 board)	\$2,024
<i>Lunch and Dinner (Monday through Sunday) Meal Plan</i>	
• McCowen, Wilson, Wiebking, Belford, Tobey-Kendel, Sabin, Snyder Halls (\$1,045 room + \$935 board)	\$1,980
• Harrison Suites (\$1,072 room + \$935 board)	\$2,007
Room Only Rates Per Semester: No Meal Plan	
• Lawrenson Apartments (per person)	\$1,155
• Student Family Apartments (per month)	\$450-500

Semester Optional Meal Plans

Dining facilities on campus provide convenience and economy. Varied entrees, salad bars, beverage and dessert selections are available daily. Computerized access allows contract holders to dine in any dining room or Armes at the UC for lunch and dinner.

UNC Dining Services offers a variety of meal plan choices to residents of Lawrenson, (excluding freshmen under age 20) and Student Family Apartments, as well as off-campus students.

Room and Board Withdrawal Costs

Students totally withdrawing from their classes during a semester will be assessed room and board charges according to the same pro rata percentage assessment as follows:

Time Period	Assessed
2- 8 class days	10%
9-15 class days	15%
16-22 class days	40%
23-29 class days	50%
30-39 class days	75%
40+ class days	100%

Note that 100% of nonrefundable fees will be assessed. Some federally-funded aid programs mandate a different withdrawal/cancellation computation.

See *Schedule of Classes* for each term for exact dates.

Other Fees

In addition to general tuition and fees, and room and board rates for students who choose to purchase those services, a number of other fees have been established by the Board of Trustees. Such fees relate to specific majors and courses that have extraordinary costs associated with them, e.g., class materials. Also, fees are assessed for employment opportunity assistance services, transcripts, etc. Refer to the current *Schedule of Classes* for more specific information on these fees.

Payment

Student Billing Procedure. It is the student (not a parent, guardian, spouse, agency of a foreign government, or other third party) who is responsible for the payment of tuition, fees and other charges.

All billed charges on a student's account are due and payable on the 10th class day of Fall and Spring semesters. Due to the multiple sessions during Summer semester, the due date will vary and the student should check his or her Summer Class Schedule for due dates.

A monthly service charge of 1.75% will be assessed on all unpaid billed charges. Billings will be mailed on or about the 15th of each month, due on the last business day of the month. THE STUDENT MUST BE PREPARED TO PAY THE FULL AMOUNT BY THE 10TH CLASS DAY TO PREVENT SERVICE CHARGES. A student who does early registration is mailed his/her Statement of Account and Change of Address form at his or her permanent (home) address unless another billing address has been provided. A student who registers later than 10 days before classes begin is required to pick up his/her Statement in either the Aspen Suite of the University Center or Carter Hall.

A STUDENT WILL NOT BE ALLOWED TO REGISTER FOR THE FOLLOWING SEMESTER UNTIL HIS/HER FINANCIAL OBLIGATION TO THE UNIVERSITY IS PAID. Those not planning to attend the University after registering for classes MUST notify the Registration Center of their intent before the second class day to avoid a 10% assessment. See *Schedule of Classes* for exact date.

Payment is to be made at a number of locations throughout campus depending on the following method of payment:

- Payment in full (Carter Hall, University Center Aspen Suite, drop boxes at various locations around campus).

- Payment through financial aid as approved by the financial aid authorities in the Office of Student Financial Resources (Carter Hall).

- Payment through "Credit Available for Student Employees at UNC" (CASE-UNC) plan, which allows students employed by the University to make arrangements through the Office of Student Employment to apply income from student employment, other than federal work-study, as it is earned to tuition, fees, and other charges (Carter Hall, University Center).

- Payment through VISA or MasterCard (Carter Hall, University Center, various drop boxes or by telephone).

In addition to the bill for tuition, fees and other charges developed through the semester registration process, additional billings will be mailed at the middle of each month to the student's local address (if no billing address has been provided) if the charges have not been paid in full or if additional charges are incurred. Each student is required to notify the Registrar's office promptly of any change in his or her local address.

For more information on the payment process, contact the Accounts Receivable office.

THE UNIVERSITY OF NORTHERN COLORADO WILL NOT REGISTER A STUDENT, RELEASE A DIPLOMA, PROVIDE A TRANSCRIPT, OR SUPPLY EMPLOYMENT OPPORTUNITY ASSISTANCE AND OTHER UNIVERSITY SERVICES TO ANY STUDENT OR FORMER STUDENT WHO HAS AN OUTSTANDING

FINANCIAL OBLIGATION TO THE UNIVERSITY OTHER THAN A LOAN THAT IS NOT YET DUE OR ON WHICH PAYMENTS ARE UP TO DATE. ALSO, FAILURE TO PAY A FINANCIAL OBLIGATION TO THE UNIVERSITY WHEN IT IS DUE MAY RESULT IN YOUR ACCOUNT BEING PLACED WITH A COLLECTION AGENCY AND SUCH ACTION REPORTED TO A CREDIT BUREAU. IN ADDITION, YOUR ACCOUNT MAY BE CHARGED LEGALLY ALLOWABLE COLLECTION CHARGES AND ATTORNEY FEES TO HELP SECURE REPAYMENT OF THE DEBT OWED THE UNIVERSITY.

Fees for Class Withdrawals. Withdrawal from a class is permitted until the midpoint of the course. Withdrawals are processed at the Registration Center, and faculty signatures are required for each withdrawal from each class.

The student must initiate the process of withdrawing from ALL classes in the Dean of Students office. A total withdrawal may be initiated until the last day of the term.

A withdrawal will appear on the student's record as a "W." This will not affect the grade point average, but tuition will be charged for these courses. Changes in tuition, fees, and other charges can be made during the add/drop period if the individual credit-hours change from part-time to full-time or vice versa. After the add/drop deadline, no changes in tuition and fees will occur unless the student totally withdraws from all classes. In this instance, the student is assessed a percentage of the tuition and fee costs based on the number of credits registered for at the time of withdrawal or drop as follows:

Time Period in Class Days	Assessed
2- 8 class days	10%
9-15 class days	15%
16-22 class days	40%
23-29 class days	50%
30-39 class days	75%
40+ class days	100%

Note that 100% of non-refundable fees will be assessed. Some federally-funded aid programs mandate a different computation. See *Schedule of Classes* for each term for exact dates.

All amounts owed to the University are due and payable as of the date of the withdrawal. Only charges for tuition, general student service fees, and room and board may be prorated based on the date of withdrawal. All other charges will not be prorated or refunded.

Individual classes may be dropped or added during the add/drop period at no charge. Students with room and board are assessed amounts based upon rates, policies and procedures explained in Residence Life contractual materials.

The following fees/charges are not refunded for any reason at any time: Arnie's charges, Bookstore charges, graduation fees, health insurance, housing damages, ID card replacement, instructional fees, lost lab equipment, library fines, lost athletic equipment, lost library books, new enrollment fee, parking fines, phone features, returned-check service charges, service charges, unpaid short-term loans, University technology fee, Student Recreation Center fee.

If a more complete explanation of the above policies is required or if individual circumstances warrant review, the student should contact the University Controller.

Financial Aid

Financial aid is awarded to assist students and parents with meeting college costs such as tuition, fees, books, food, housing and transportation. The Office of Student Financial Resources administers several types of state and federal aid programs including grants, loans, employment, scholarships and Veteran's benefits. The following represents the types of assistance available as of this printing.

Educational Loans. Loan funds plus interest must be repaid to the lending institutions, usually after graduation. Some loans have cancellation and deferment provisions. UNC participates in the following loan programs: Federal Perkins Loans, Federal Subsidized and Unsubsidized Stafford Loans and Parent Loans for Undergraduate Students (PLUS). Eligibility for Federal Perkins Loans and Subsidized Stafford Loans is based upon need, as determined by the completion of the Free Application for Federal Student Aid (FAFSA).

Grant Funds. Grant funds are awarded on the basis of financial need. These funds do not require repayment unless the student does not complete the term in which the funds are received. Grant funds available at UNC include the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Colorado Student Incentive Grant, Colorado Diversity Grant, and undergraduate and graduate Colorado Student Grants.

Student Employment. UNC offers a number of employment opportunities. Federal and State Work Study programs provide on- and off-campus jobs to students demonstrating financial need. Colorado No-Need Work Study is available on a limited basis to undergraduate Colorado residents who do not qualify for other forms of financial assistance and apply by the priority deadline of March 1. For those students who do not qualify for the Work Study programs there are part-time hourly positions both at the University and off-campus.

Scholarships. Scholarship funds do not have to be repaid and are usually awarded on the basis of academic performance, talent, athletic ability and other criteria determined by the donor. A separate application is required.

Veteran's Benefits. Eligibility for Veteran's benefits is certified by this office.

How to Apply for Aid

To qualify for "need-based" programs, the student must demonstrate "financial need," or a difference between the cost of education and what the family (both student and parents) can reasonably afford to pay toward that cost. The family's income and assets are reviewed to calculate the family contribution in a process called "Need Analysis." UNC uses the Free Application for Federal Student Aid (FAFSA) to initiate this process. Completion of the FAFSA means the student is applying for all state and federal aid programs offered at UNC with the exception of scholarship programs.

The FAFSA form can be obtained from all college financial aid and high school guidance counselor's offices. The student must carefully complete the form and mail it in the provided self-addressed envelope. To receive the maximum amount of funding, the application must be received by the need analysis service by March 1 preceding the award year. An application processed after March 1 will be considered late and the applicant will have limited funding opportunities.

To apply for a Federal Stafford or Parent Loan for Undergraduate Students, students must accept the loan on the Award Notification form. A preprinted loan application will be sent to the student by the Colorado Student Loan Program (CSLP). This application must be completed and returned to CSLP in the envelope provided.

How To Apply for a UNC Scholarship

Incoming freshmen and transfer students must be admitted to UNC by February 15 to be considered for scholarships for the upcoming academic year. Eligibility for scholarships is based on information obtained from the admission application. Continuing UNC students may obtain a UNC "Fast App" from the Office of Student Financial Resources. This application is due March 1. A listing of scholarships offered through private sources is available for use in the office. Many local libraries offer a comprehensive list of local and national scholarships.

The Award

Financial aid, awarded on the basis of "need," may include a package of grants, loans and employment.

Students and parents are expected to contribute their share toward the costs of education. All students are expected to work during the summer and periods of non-enrollment and save a significant portion of their earnings.

Financial aid is available in limited amounts to help students finance school expenses. However, while college costs continue to rise, federal and state aid does not rise at the same rate. Consequently, families must increasingly rely upon their own funds to pay for school. Students are expected to arrive on campus with funds to use for books, tuition, housing and utilities deposits and other expenses associated with the beginning of the year.

Financial aid funds usually are available at the beginning of each semester as a credit to charges on the student's bill except for PLUS Loan funds, which are mailed directly to the parent borrower. A check will be available to the student if the aid exceeds all institutional charges.

Financial aid awards are offered for an academic year. A separate application is required for funding during the summer session. Contact the office for dates and more details.

Renewal of financial aid is not automatic. A new application must be completed and mailed by February 15 preceding each award year that aid is requested. The student's academic progress as well as financial need determines the continuance of funding.

Voice Response. Information about a student's financial aid application may be accessed 24 hours a day through the Voice Response System at 970-351-2825. Service Code 3 provides the financial aid main menu.

Academic Progress Standards

The Office of Student Financial Resources is responsible under state and federal regulations for establishing and monitoring minimum acceptable progress for the continuation of financial aid eligibility. The standard of satisfactory progress must include a student's total academic history at UNC.

In order to be eligible to receive financial aid, the student must be making satisfactory progress towards a degree program, regardless of whether she/he has previously received financial assistance. For a more detailed explanation of these policies, refer to the Standards of Satisfactory Academic Progress mailed with the award letter or a copy of the UNC Satisfactory Academic Policy statement available in the Student Financial Resources office.

Refund and Repayment

Tuition adjustments resulting from a complete withdrawal from the University may affect the financial aid the student has received. Credit balances are returned to financial aid accounts. Students can refer to *Paying Your Account in the Schedule of Classes* for more explanation.

Any student withdrawing totally from the University who has received her/his financial aid for that semester may be required to repay the financial aid. For a more detailed explanation of these policies, refer to the Refund/Repayment Policy available in the Office of Student Financial Resources.

Undergraduate/Graduate Registration

Contacts in This Chapter

Admissions Carter Hall 3006 Greeley, CO 80639 970-351-2881	Denver Admissions Spectrum Building, Suite 560 1580 Lincoln Street Denver, CO 80203 303-831-8550	The Graduate School University Hall Greeley, CO 80639 970-351-2831	Registrar and Records Carter Hall 3006 Greeley, CO 80639 970-351-2231	Registration Center University Center Greeley, CO 80639 970-351-2521	Telephone Registration 970-351-2825
Toll-free from Denver 637-3061					

Registration Procedures

For each semester, the University publishes a *schedule of classes*, which serves as the basic guide for registering for classes. It provides information on drop/add/withdrawals, fee payment and other relevant policies, procedures, and deadlines for which students are responsible. The *Schedule of Classes* for the appropriate semester may be obtained from the Registration Center or the Academic Advising Center in the University Center or the Admissions office in Carter Hall.

Registration is a continuing operation. Students are assigned times during the last part of an academic semester when they may register for courses offered in the following semester.

Registration consists of the following processes:

- Distribution of course selection materials and advising
- Selection of courses
- Verification of courses
- Receipt of statement of account and change of address form
- Payment of student account

Provisions are made for new students to register during this regular process. In addition, because most new students enroll for the Fall semester, the undergraduate orientation program during June, July and August provides academic advising and special assistance for new student registration. The Graduate School also conducts an orientation for new graduate students.

Registration Methods

Voice Response. Students may register using a touch-tone telephone by following directions in the *Schedule of Classes*. Using the phone number above, this optional service costs \$3 per semester.

In-person. Students may register in-person at the Registration Center in the University Center.

Late Enrollment

No student is permitted to enroll in a full-term course after the first eight class days. This deadline applies to students who have not selected any courses previously for the current semester. Students should consult the *Schedule of Classes* for the exact date each semester after which new enrollments will not be accepted.

Schedule Changes (Adds/Drops)

During the beginning of each semester, students may add or drop courses from their schedule (see the *Schedule of Classes* for specific deadlines). This procedure is handled in the Registration Center in the University Center or by touch-tone telephone registration. After the deadline posted in the *Schedule of Classes*, students may not enroll in additional full-term courses or drop full-term courses in which they are currently registered. The drop/add deadline for a short-term class occurs when the class has held 15 percent of its meetings. The number of credits for which a student is registered at the time of the drop/add deadline determines tuition and fee charges. Drops differ from withdrawals since they are not recorded on the student's transcript as are withdrawals (see next section).

Withdrawal from Class

When a student registers for a class, he or she is considered to be a member of the assigned class section as certified by the forms completed at registration and the Class Schedule Confirmation form printed after registration.

The student may drop a class during the "Drop/Add" period, normally the first 10 class days of a semester for full-term courses. The dates of the Drop/Add period each semester are listed in the *Schedule of Classes*. A signature is not needed to drop a class.

The procedure for withdrawal requires the student to obtain the faculty member's signature on the Schedule Change form to indicate that the faculty member is aware of the withdrawal. The form may be obtained in the Registration Center or Academic Advising Center in the University Center or the Registrar's office in Carter Hall. The first date to withdraw from an individual course is the first class-day immediately after the drop/add deadline. The last date to withdraw from an individual course is the midpoint of the semester. Withdrawal deadlines for each semester are also noted in the *Schedule of Classes*. The withdrawal deadline for a short-term class occurs when the class has held 50 percent of its meetings. A "W" appears on the transcript for each class from which a student withdraws.

Registration for a class creates a financial liability that may be eliminated only if the student removes herself/himself by the first class day via the proper procedure.

Should the faculty member refuse or be unavailable to sign the Schedule Change form for a withdrawal, the student may ask for assistance from the department chairperson or the dean of the appropriate college. When properly signed, the Schedule Change form is turned in at the Registration Center at the University Center.

Two-Class-Hour Requirement

A faculty member may drop a student from a class during the drop/add period if the student has not attended the first two hours during which the class meets. The student must notify the instructor if he or she cannot attend during this time. Not all instructors will exercise this option; thus, a student cannot expect that the failure to attend the class will automatically cause him or her to be dropped. Consequently, the student must follow the procedures listed in the *Schedule of Classes*.

Undergraduate/Graduate Policies and Procedures

13 Academic Freedom, Rights and Responsibilities of Students

13 Attendance

13 Course Designations

13 Course Load

14 Family Educational Rights and Privacy Act

14 Final Examinations

14 Full-Time and Part-Time Status

14 Grades

14 Grades, Calculating Averages

15 Grades, Submissions and Corrections

15 Immunization Regulation

15 Insurance Requirement for All Students

15 Medical Examination

15 Off-Campus Activity and Field Trip Disclaimer

15 Parking Regulations

15 Readmission After Academic Suspension

15 Semester System

15 Transcripts

15 Withdrawal from the University

Academic Freedom, Rights and Responsibilities of Students

The University has established policies and procedures that reflect concern for student freedom, rights and responsibilities. Essentially, students can expect protection against improper academic evaluation and protection of the right to due process in academic and disciplinary proceedings. The student can also expect to be held responsible for performance and conduct in the classroom and on the campus.

For more information, students should obtain a copy of the Student's Rights and Responsibilities statement found in the Student Handbook from the Office of the Vice President for Student Affairs.

Attendance

Regular attendance in all classes is assumed and encouraged. Each instructor determines the relationship between class attendance, the objectives of the class and the student's grade. The instructor is responsible for informing students of attendance policies and the effect of attendance on their grade. The student is responsible for knowing the policy of each course in which he or she enrolls.

Only the instructor can approve a student request to be absent from class. The student is responsible for requesting such approval when absence is unavoidable.

Attendance during the first two class hours is required. The instructor has the option to drop a student from class if he or she does not attend the first two hours during which the class meets, in order to allow other students to enroll. Not all instructors will exercise this option; therefore, a student should not assume that non-attendance will automatically drop him or her from class.

Course Designations

Prefixes. Each course is assigned a prefix that identifies the discipline, field or department offering the course. For example, course numbers in Communication Disorders are preceded by CMDS; course numbers in Mathematics are preceded by MATH; and courses in Visual Arts are preceded by ART.

Numbers. Five groups are identified by course numbers, generally to indicate the difficulty of a course and its location on a continuum of study that leads to general mastery of the content and methodology of a discipline:

- Basic skills courses — 001 through 099 range are not counted in cumulative credits, total credits toward graduation or grade-point-average.
- Lower division courses — the 100 range for freshmen and the 200 range for sophomores.
- Upper division courses — the 300 range for juniors and the 400 range for seniors.
- Master's level courses — the 500 and 600 ranges. Juniors and seniors with a cumulative grade-point-average of 3.00 or higher may be admitted to 500-level courses by special permission of the instructor, but no undergraduates may be admitted to course numbers above the 500 range.

- Doctoral and Specialist level courses — the 700 range.

Occasionally, courses that do not appear in the Bulletin may appear in the *Schedule of Classes*. These course numbers end in "98" and are considered experimental. For example, an experimental course in geology might be GEOL 398. Courses ending in "98" cannot be used to meet General Education requirements.

Course Load

For all students, nine credit hours is considered full time for health insurance requirements and tuition charges. For financial aid and verification of enrollment purposes (other than for health insurance), full-time enrollment is considered 12 credit hours for undergraduate students and nine credit hours for graduate students. A normal undergraduate course load, however, is 15 credit hours of academic credit in each semester. This information may vary during summer terms; students should check the *Summer Schedule of Classes* for correct information. Undergraduate students are allowed to enroll for a maximum of 18 credit hours before the beginning of the semester.

More than 18 credit hours per semester for undergraduates and 17 credit hours for graduates is considered an overload and requires the payment of a tuition surcharge based on the number of credit hours taken (see chapter on Costs). With approval from the Academic Advising Center, beginning the first day of classes through the drop/add deadline, undergraduate students with a 2.75 or higher cumulative grade-point-average may enroll for additional courses. Additional requirements are:

- Music or business majors receive overload approval from their department.
 - Overloads during the semester of student teaching are approved by the Professional Teacher Education Program (PTEP).
 - Overloads of 22 credit hours or more require a letter from the student's advisor approving the overload in addition to the approval from Academic Advising.
 - Graduating seniors can obtain overload approval before the first day of class through the Academic Advising Center.
 - Graduate students receive overload approval from their academic advisor.
- Course-load limitations for graduate students apply to all courses taken while an individual is enrolled as a graduate student in a graduate degree program, a non-degree certification program, or any combination thereof. The maximum load for a graduate student is 17 hours per semester. During the summer term maximum credit loads may vary. Students should check the *Summer Schedule of Classes* for correct information.
- The course-load limitations refer to work completed in either on-campus or off-campus programs or in a combination of the two types.

Contacts in This Chapter

Academic Advising
Center
970-351-1391

Vice President for
Academic Affairs
970-351-2823

Dean of Students
970-351-2796

The Graduate School
970-351-2831

Parking Services
970-351-1971

Vice President for
Student Affairs
970-351-2303

Registrar and Records
970-351-2231

Student Financial
Resources
970-351-2502

Student Health Center
970-351-2412

Family Educational Rights and Privacy Act

The University maintains an educational record for each student who is or has been enrolled at the University. In accordance with the Family Educational Rights and Privacy Act of 1974, as amended, the following student rights are covered by the Act and afforded to all eligible students at the University.

1. The right to inspect and review information contained in the student's educational records.
2. The right to request amendment of the contents of the student's educational records if believed to be inaccurate, misleading, or otherwise in violation of the student's privacy or other rights.
3. The right to prevent disclosure without consent, with certain exceptions, of personally identifiable information from the student's educational records.

For example: Parents of dependent students (as defined by Internal Revenue Code of 1954, Section 152, as amended,) are exceptions. All students under age 21 shall be assumed dependent unless the student notifies the Registrar's Office in writing when he or she considers himself or herself to be of independent status. To establish dependent status of a student 21 years of age or older or one who has notified the Registrar's office of his/her independent status, a certified copy of the parents' most recent federal income tax form shall be required before any educational records or components thereof shall be released to the parents of the student.

4. The right to secure a copy of the University's policy.
5. The right to file complaints with the U.S. Department of Education concerning alleged failures by the University to comply with the provisions of the Act.

Each of these rights with any limitations or exceptions is explained in the University's policy statement, a copy of which may be obtained from the Registrar's office.

The University may provide "Directory Information" in accordance with the provisions of the Act without the written consent of an eligible student unless it is requested in writing that such information not be disclosed (see below). The items listed below are designated as Directory Information and may be released about any student for any purpose at the discretion of the University unless a written request for nondisclosure is on file:

Category I: Name, addresses, telephone number, dates of attendance, student classification.

Category II: Previous institution(s) attended, major field of study, honors, awards, degree(s) conferred, degrees pursued or being pursued, enrollment status.

Category III: Past and present participation in officially recognized sports and activities, physical factors of athletes (height and weight), date and place of birth.

Currently-enrolled students may prohibit general disclosure of this Directory Information by notifying the Registrar's Office in writing, specifying the categories to be withheld within 10 calendar days after the first scheduled class-day of each term. The University will honor the request until the student notifies the Registrar's Office in writing of intent to allow release to Directory Information. The student should carefully consider the

consequences of any decision to withhold any category of Directory Information. Regardless of the effect upon the student, the University assumes no liability that may arise out of its compliance with a request that such information be withheld. It will be assumed that the failure on the part of a student to request the withholding of Directory Information indicates the student's consent to disclosure.

Directory information may be disclosed through a variety of methods including, but not limited to, paper, electronic, voice and other means.

Any questions concerning the student's rights and responsibilities under the Family Educational Rights and Privacy Act should be referred to the Registrar's office.

Final Examinations

All final examinations periods are 150 minutes in length.

Examinations are conducted in the same classroom used throughout the semester unless alternative arrangements are made with the scheduling department of the Registrar's office. Faculty should alert students to changes in final examination times or locations before the testing date.

With the approval of the department chairperson, the final examination may be eliminated by an instructor who considers it unnecessary.

If no final examination is given, class will continue through the last week of the semester. In such cases, classes will meet at the times shown on the final examination schedule.

Each student registered for credit in a course must attend the final examination unless the student has made prior arrangements to be excused by the instructor.

In extreme instances, a final examination may be rescheduled by the instructor, provided the change is coordinated with the appropriate dean's office and approved by the department chairperson.

If a student has three or more final examinations scheduled for one day, the student may negotiate a time change with the instructors involved. This negotiation should take place not less than one week before the scheduled examinations. If the parties involved cannot find a mutually agreeable time, the Office of Academic Affairs will indicate courses for which a change must be made. Laboratory sessions will not meet during the final examination period. Laboratory examinations should be given before final examination week.

Full-Time and Part-Time Status

Full-time status for tuition purposes, health insurance requirement and verification of enrollment for health insurance purposes is nine credit hours for undergraduate and graduate students.

Full-time for financial aid purposes, directory information and enrollment verification (other than health insurance) is 12 credit hours or more for undergraduates and nine credit hours or more for graduates. Undergraduates enrolled in six to eleven credit hours and graduates enrolled in five to eight credit hours are classified as half-time. Part-time is five credit hours or less for undergraduates and four credit hours or less for graduates.

Grades

The University assigns alphabetical grades. Superior is indicated by "A," above average is "B," average is "C," below average but passing is "D," and failure is "F." A course in which a "D" is earned will not be counted toward graduate-degree credit.

Certain courses are graded "S/U" (satisfactory/unsatisfactory). Grades of "S" and "U" are also used for thesis, dissertations, and educational field experience courses. They may be used for certain workshops, practica, performance, or activity courses when indicated in the *Schedule of Classes* and in the course descriptions in the Bulletin. "S/U" grades are not equivalent to any other letter grade and are not computed as part of the student's grade-point-average.

A "W" indicates an approved withdrawal from the course and is assigned only when the student has completed the official withdrawal processes outlined in this publication. This grade is not computed in the student's grade-point-average.

The grade of "UW" indicates an unauthorized withdrawal and is assigned when the student has never attended the class for which he or she enrolled. The grade is not computed in the student's grade-point-average.

A grade of "I" is assigned when coursework is incomplete at the end of the academic term and is used only when a student cannot fulfill his or her academic responsibilities during the last week of a term or because he or she missed the final examination due to sickness, an emergency in the family, etc. To amend a grade of "I" with an earned grade on a student's transcript, the student must complete all coursework by the last day of the next semester of enrollment including summer term. If a student does not enroll again, the maximum time allowed for completion is one year. If a student does not complete the academic requirements within these time limitations, the grade will be recorded as "I/F" or "I/U" on the academic record. The "I/F" will be computed into the student's grade-point-average as an "F" grade.

The grade of "NR" indicates no report. This is used for honors courses, theses, dissertations and other courses that have been granted approval before the semester that the grade is to be awarded. (There is a difference between a grade of "NR" and "incomplete." The "NR" is prearranged due to the unique nature of the course, i.e., completion of coursework requires longer than a semester to complete. The "I" grade is assigned due to unanticipated circumstances that make the student unable to complete course requirements within the allotted time.)

The grade of "NC" indicates no credit was earned for this course because the student enrolled for no credit (audit).

Grades, Calculating Averages

The University operates on a 4.00 grade point system. A grade of "A" has a value of four grade points, "B" equals three points, "C" equals two points, "D" equals one point. No points are given for an "F."

"S" (credit granted) or "U" (no credit granted) and "W," "UW," "NR" and "NC" are not used in computing the grade-point-average. "I" is not used for computing the grade-point-average unless the time for completion of the work has

expired. In this case the "I" is computed as an "F" and an "I/F" is recorded on the transcript if the course is graded "A"- "F."

To compute a semester grade-point-average, first remove all basic skills courses (numbered 001 through 099) and all courses that carry the grades listed previously, "S," "U," "W," "UW," "NR," "NC." Then multiply the credit hours for each remaining class by the number equivalent to the letter grade. Add those numbers together to obtain the total number of points for the semester. Then divide the total number of points earned by the total number of credit hours attempted. For example, 3 credit hours of "A" (12 points) plus 5 credit hours of "B" (15 points) plus 3 credit hours of "C" (6 points) equals 33 points. If 11 credit hours were attempted (enrolled for), divide 33 points by 11 credit hours to find the grade-point-average of 3.00. If the same grades were received, but 14 credit hours were attempted (i.e., received an "F" for 3 credit hours), 33 points divided by 14 credit hours equals a grade-point-average of 2.35.

Compute the cumulative grade-point-average the same way. Add the total number of points earned in all classes except basic-skills courses (numbered 001 through 099) and all courses that carry grades of "S," "U," "W," "UW," "NR," and "NC." Divide this number by the total credit hours attempted. For example, 75 total grade points earned over two semesters divided by 30 credit hours attempted in the same two semesters equals a cumulative grade-point-average of 2.50.

With the exception of courses numbered 001 through 099, all grades with a numerical value are used to compute the grade-point-average whether or not the credits count toward graduation or the courses have been repeated.

Grades, Submissions and Corrections

Faculty must submit grades to the Registrar's Office by 4 pm of the third working day after the end of a course. Grade changes or corrections must be submitted within the first two weeks of the following semester. Spring-term grade changes are also due the first two weeks of Summer term. Grade change requests are submitted on special grade report forms signed by the instructor and department chairperson. Forms are available from the Registrar's office and are supplied only to faculty and departmental offices. No grade change requests submitted by students will be accepted.

Immunization Regulation

By Colorado statute and University regulation, all students must submit an immunization record form, completed by qualified medical personnel (nurse, physician, or school health official), to the UNC Student Health Center in order to register for classes. This record must certify that the individual has immunity to rubella (measles), rubella (German measles) and mumps.

Individuals who are unable to be immunized due to medical, religious, or personal reasons are exempt from this regulation if they provide a Certificate of Exemption with the exemption statement appropriately signed.

In the event of an outbreak, individuals who do not have proof of immunization or who have signed an exemption from immunization form will be subject to exclusion from school and subject to quarantine.

Insurance Requirement for All Students

UNC's Board of Trustees requires that all students registered for nine credit-hours or more have health insurance. This insurance is also available to students' dependents and part-time students upon request.

The UNC-sponsored health insurance policy is automatically assessed to all full-time students, but can be waived if the student presents evidence of a comparable health insurance plan. The deadline

for such waivers is the 10th class day of the semester. Nonpayment of the health insurance premium does not waive the insurance. A waiver form must be completed by the deadline.

Any student who enrolls in the University's health insurance plan during spring semester is automatically covered by that insurance during summer session with no additional premium. The University does not require students registered only for summer session to purchase its student-health insurance plan or demonstrate possession of an acceptable insurance plan. However, students registered for summer sessions may purchase the insurance plan for the summer term only.

Medical Examination

Medical history report and medical examination report forms are sent to each accepted student. Students planning to participate in intercollegiate athletics are required to submit both forms. While students are encouraged, but not required, to submit a medical exam, they must submit a Health History Report before they can receive services at the Student Health Center.

Off-Campus Activity and Field Trip Disclaimer

As part of the courses and extracurricular activities offered by the University, students will be encouraged to attend campus events or engage in off-campus activities as a supplement to their on-campus instruction and education. These activities may include travel to foreign countries or other states as well as in-state field trips. Students may be expected to provide their own transportation to and from such activities, or the University may arrange or otherwise provide transportation. Under any circumstance, however, the University presumes its students are of sufficient age and maturity to be responsible for their conduct and activities at all times, on or off campus. The University expects and requires its students to comply with all laws and to assume all responsibility and liability for their actions and conduct while attending, being involved in or traveling to and from any off-campus activities, whether for required or voluntary activities.

Parking Regulations

Students, faculty, or staff who wish to park a vehicle on campus must purchase a parking permit from Parking Services. Vehicles parked on campus in violation of UNC parking regulations may be ticketed and/or towed. All funds from decal sales and parking fines are used to build and maintain UNC parking lots.

Readmission After Academic Suspension

Students may immediately appeal their suspensions if extenuating circumstances exist. These circumstances include factors beyond the student's control (e.g., family emergency, illness, death, etc.) and must be documented. Appeal forms are available at the Academic Advising Center.

A student who has been suspended may not re-enroll at the University until the passage of at least one term, not including summer term. A readmission appeal form must be submitted to the Academic Advising Center before the term in which the student wishes to reenter UNC. The appeal should include a detailed account of the reasons the student did not achieve his or her academic potential and a description of the circumstances that have changed to allow the student to perform at a satisfactory level. The appeal must also contain a specific plan of action that the student will follow to attain academic success. A student who has attended other institutions since suspension from UNC must furnish official transcripts from those institutions. Readmission forms are available at the Academic Advising Center.

Semester System

The University of Northern Colorado follows the early semester system in which the academic year is divided into two instructional semesters of approximately 15 weeks each. The academic year (fall, spring) begins in late August and concludes in mid-May, with a vacation break between the semesters. A full slate of courses also is offered during the summer semester. Students enrolling in the University for the first time may do so before the beginning of any semester.

Transcripts

There is a fee charged for each transcript ordered. Official transcript orders placed with the Registrar's Office require the student's signature and a fee before a request can be processed. Transcripts may be ordered in person or by mail and are mailed out or can be picked up by the student.

Withdrawal from the University

A student may withdraw completely from the University at any time during the semester. Students must start and finish the process at the Dean of Students office. Depending upon the date the withdrawal is initiated, a percentage of tuition and fees will be assessed. (See the description of Withdrawals, Drops, or Cancellation from Classes within the Costs, Payment, Financial Aid section of this Bulletin.)

Students who receive financial aid and then withdraw during a semester that they received aid may be required to repay a proportionate amount to the financial aid account. Information about a specific repayment amount is available from the Office of Student Financial Resources.

Undergraduates Only: Policies and Procedures

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Academic Advising

It is University policy that each student is entitled to academic advising. Advising expedites course selection and helps the student create a personal academic program suited to his or her needs and the University's graduation requirements.

Academic planning is best achieved when a student works with a qualified advisor. Students who declare majors are assigned advisors in their departments. Undergraduate students who have not yet declared majors are advised by the Academic Advising Center located in the University Center.

Each advisor has access to a complete summary of a student's academic records, which are updated each semester. Information provided by the Registrar's office and information from advising sessions with the student equip the advisor to help with a variety of academic issues, procedures and opportunities.

All students are encouraged to make full use of the advising system including, but not limited to, a visit to an advisor before registration each semester. All undergraduate students must obtain a Personal Access Code (PAC) from their academic advisors before registration unless the PAC is printed on their course selection forms.

Additional information about the undergraduate advising system may be obtained from the Academic Advising Center.

Academic Appeals

Students may appeal any academic decision that they consider arbitrary or capricious, or contrary to University policy. The procedures of the Academic Appeals Board and the University Disciplinary Committee are published in the Student's Rights and Responsibilities statement and can be further explained by the Dean of Students office.

Before initiating an appeal and between various appeals stages, the student is strongly encouraged to discuss her or his case with the Dean of Students office and/or his or her academic advisor.

Academic Recognition

Dean's List. Students will be placed on the Dean's List of Distinction if they complete a minimum of 24 credit hours and achieve a 3.75 or above grade point average for any two of the three academic terms of the year (cumulative grade-point averages are not considered).

Dean's Honor Roll. Students will be placed on the Dean's Honor Roll if they complete a minimum of 24 credit hours and achieve a 3.50 to 3.74 grade point average for any two of the three academic terms of the year (cumulative grade-point averages are not considered).

Graduation with Honors. Graduation with honors (cum laude, magna cum laude, summa cum laude) is determined on the basis of a student's cumulative grade-point average. A student's academic record is reviewed for graduation with honors the semester before the semester that the student will graduate. To qualify for honors the semester before graduation, the student must have completed 50 semester hours of credit at

UNC and have achieved the necessary cumulative grade-point average. A student's record may also be reviewed at the end of the semester that he or she graduates. To qualify for honors at the time of graduation, the student must have completed 56 semester hours of credit at UNC and have achieved the necessary cumulative grade-point average.

In either situation, the honors designation will be indicated on the student's transcript. However, the honors designation will be announced at graduation ceremonies only for those students who qualified for honors the semester before graduation.

The criteria for awarding honors will be determined by the graduating classes of a given college from the previous academic year. The criterion for cumulative grade-point average for summa cum laude will be determined by the lowest cumulative grade-point average of the students in the top two percent of the previous year's school/college graduating class; for magna cum laude, by the lowest cumulative grade-point average of students in the top four percent; and for cum laude, by the lowest cumulative grade-point average of students in the top six percent.

Academic Standing

A student's academic standing is determined by the grade point average. An undergraduate student's academic status, whether currently or formerly enrolled, full-time or part-time, is one of the following classifications:

- "Good Standing" — Having both a term and cumulative grade-point average at or above a 2.00.
- "Academic Probation" — An intermediate status between good standing and academic suspension (dismissal from the University). There are two types of academic probation. 1.) Students are placed on "term-probation" after any term in which they fail to earn a 2.00 term grade point average and are taken off the next time they receive at least a 2.00 term grade point average. 2.) Students are placed on the second type, "cumulative probation," at any time their cumulative grade-point average drops below a 2.00 and are taken off when they reach at least a cumulative 2.00 grade point average.

A student can be placed on both term and cumulative probation at the same time. These two types of probation are meant to serve as warnings to students, not as penalties. No notation of academic probation appears on the student's transcript; however, an academic probation notation appears on the student's grade report and on the Academic Progress Report (APR) provided to the student's advisor.

- "Academic Suspension" — Involuntary dismissal from the University as a consequence of unacceptable academic achievement. The term "academic suspension" appears on the student's official transcript.

Suspensions are administered by the Academic Advising Center and are applied to students who are 15 quality points deficient in their most recent term grade point averages or who are 15 quality points deficient in their cumulative grade-point averages.

Contacts in This Chapter

Academic Advising Center 970-351-1391	Career Services 970-351-2127	Graduate School 970-351-2831
Admissions 970-351-2881	Dean of Students 970-351-2796	Registrar and Records 970-351-2231

Basic Skills Courses

These courses are designed to teach academic skills and general competencies necessary to succeed in college. Numbered 001 through 099, they do not count in term, cumulative or total credits and are not calculated into the grade point average. Credits earned in these courses will not count toward meeting financial aid minimum credit-hour requirements.

Class Status

A student is classified as a freshman until successful completion of 30 semester hours of credit and as a sophomore until completion of 60 semester credit hours. A student is considered a junior until completion of 90 semester hours and then is classified as a senior until completion of a baccalaureate degree.

Course Credit

All credit toward graduation is computed in semester credit-hours. "One semester hour" typically means a course is taught for approximately one hour one day each week throughout the semester of 15 weeks. Likewise, a two-credit-hour course usually meets twice a week and generates two semester hours of credit. Most courses are offered for three semester credit-hours.

Courses may be repeated for credit only when that fact is listed in the course description section of the appropriate Bulletin and only up to the maximum number of credits and other specifications as shown in the Bulletin. Repeated courses are recorded on the transcript separately for each time the student registered, with all letter grades counting toward the cumulative grade average. A non-repeatable course may be counted in total credits toward graduation only once.

For grades of "F," "U," and "I" that have not been completed within the allotted time, the credit hours are bracketed on the transcript and not included in total credits.

Students may register in a course for "no credit" but must pay the same tuition and fees as those taking the course for credit. No audit or visitor cards are issued. Students taking a course for no credit must enroll for 00 credit hours through the regular registration procedure before the drop/add deadline. Students need not complete assignments or exams used to determine grades, but are expected to attend classes when enrolled for no credit.

Non-attendance may result in the assignment of a "UW" grade.

Coursework May Count for the Next Higher Degree

Students may, in the last semester of study for one degree, register for graduate courses that exceed the requirements for that degree, provided that their application for admission to the next higher degree program is accepted before the start of the final semester. If the student has been admitted to the program for the next higher degree, he or she must complete "A Petition to Count Work On the Next Higher Degree" that may be obtained from the Graduate School office. Students will be accountable for the final examination in the courses taken for the next higher degree.

Credit by Examination: AP, CLEP, Challenge, Proficiency

The University offers three options for credit by examination:

- A student may qualify for University credit or may exempt a specific course by demonstrating superior performance on the subject matter examinations administered through the Advanced Placement (AP) program of the Educational Testing Service. These are usually taken when the student is still in high school.

- The College-Level Examination Program (CLEP) offers another opportunity to earn credit through demonstration of superior performance in subject matter examinations. CLEP credit is offered for certain introductory and select advanced courses. Arrangements are made at Career Services.

In addition, students who judge their current academic ability in a specific course to be sufficiently high to earn credit may take rigorous subject matter examinations. Several departments offer University challenge examinations that may be taken under the following conditions:

- The specific course must have been approved for challenge examination by the academic department that administers the course.

- The student must enroll in the course and pay the appropriate tuition and fees.

- The student must obtain approval from the course instructor to challenge the course through examination.

- The student must arrange for and pass a challenge examination designed and administered by the instructor or the department during the first two weeks of the semester that the specific course is offered.

If a student passes the examination, he or she will not be required to attend the remaining class sessions. At the end of the semester that the examination was passed, the class credit and grade earned on the examination will be entered on the student's transcript.

Should the student fail the examination or seek to earn a higher grade than attained on the examination, the student may either remain in the class and meet the course requirements or withdraw from the class before the withdrawal deadline for that semester and re-enroll in the class to attempt to earn credit by examination in a subsequent semester.

Not all academic departments offer the credit-by-examination option: Students should contact the main office of any department to determine the policy of that particular department.

Proficiency Examinations. Certain required courses in some majors and minors offer proficiency examinations to determine whether or not a student may be excused from a requirement.

Directed Studies

Directed Studies are available in most disciplines. These are identified within this publication by course numbers 422 and 622. The Directed Study course provides a vehicle that a qualified student may use to receive University credit for an individualized investigation under the direct supervision of a UNC faculty member. Because Directed Studies with the number 622 are at the

graduate level, the faculty member providing the supervision must be approved to teach graduate-level courses.

The investigation must be on a specific topic that is not duplicated by an existing course within the University's curriculum. The following policies apply for registration in Directed Studies courses:

1. A Directed Study course may be for no more than four semester hours of credit per academic semester, with no more than six credits of Directed Studies taken in any semester.

2. The student should apply through the department in which he or she is doing the study.

3. Permission to engage in a Directed Study for credit must be approved by the student's program advisor, the faculty member supervising the study, and the department chairperson of the major department. The Non-Scheduled Course form to be presented at the Registration Center at the time of enrollment must bear the signatures of the supervising faculty member and the department chairperson. Forms are available only through the department in which the study is supervised.

Separate policies exist for distribution of critiqued and graded copies of a completed Directed Study, based on whether the study was completed at the graduate or undergraduate level. A student interested in the appropriate policy should consult with either the Graduate School or the dean of the college in which the Directed Study is to be undertaken.

Double Majors and Concurrent Degrees

Students may complete the requirements for two majors (a "double major," the concurrent completion of the requirements for two majors), in which case both majors will be listed on the transcript. Undergraduate students who have two majors and have satisfactorily completed a minimum total of 150 semester hours of credit, will receive diplomas indicating the awarding of two degrees simultaneously. A student with less than 150 semester credit hours will receive one degree appropriate for the major declared as the first major.

Additional hours above the minimum requirement for a degree are incorporated into that degree program and may not be used to meet other requirements.

Fresh Start Programs for Freshmen, Continuing Students

Although these programs are separate and distinct from each other, their purpose is the same: to provide a second chance or "fresh start" to students who have experienced poor academic beginnings. This is accomplished by giving students the opportunity to recalculate their grade point averages without using certain or all grades of "D" and "F."

The Fresh Start Program for Freshmen is for students who have earned less than 30 semester credits toward graduation and who have less than a 2.00 cumulative grade-point average. To be eligible, a student must attend another institution and transfer a minimum of 24 semester credits (or 36 quarter credits) of transferable course

work to UNC with a 2.50 grade point average for these credits. After returning to UNC, the student must earn 12 credits and a 2.50 grade point average for these 12 credits.

The Fresh Start Program for Continuing Students is for individuals who have grades of "D" and/or "F" that are at least four (calendar) years old based on the most recently completed term at UNC. In both programs, "Ds" and "Fs" earned during the terms covered by the Fresh Start Program or not used in the recalculation of the grade point average no longer count for credit toward graduation. Students must also complete at least 30 semester credits of UNC coursework before graduating, but after the rules of the Fresh Start Program have been applied.

For more information, students should contact the Academic Advising Center.

Graduation Application

Undergraduate students should apply for graduation upon completion of 75 semester hours of credit applicable to the degree program. The application will be evaluated and processed by the Registrar's office and the major, minor and licensure departments. Applications for graduation are accepted through 4 pm Friday of the second week of the semester that the student expects to graduate. There is a graduation fee assessed for the term the student initially plans to graduate.

After the application is filed, the student is required to inform the Registrar's office of any change in graduation plans, i.e., the proposed semester of graduation or course substitutions.

On-Campus Living Requirement

All freshmen with less than 24 semester hours earned and under 20 years of age are required to live in a residence hall. Undergraduate students must be enrolled in a minimum of six semester hours to live on campus.

Orientation

Discover UNC is an orientation program for entering freshmen and transfer students that provides essential information about the University, its academic policies and requirements; academic advising, and assistance in registering for classes. By separate mailing, newly-admitted students are invited and strongly encouraged to attend the orientation program. The Academic Advising Center can answer questions about the program.

Second Baccalaureate

Students who received their first degree at UNC and wish to declare an intent to complete a second baccalaureate degree must complete a Change of Major form available in each academic department. Upon completion of the form and approval by the appropriate department, the student's records will be changed to reflect the intent to complete a second baccalaureate degree. In order for the classification change to be approved for a particular semester and, thus, allow the student to pay undergraduate rather than the graduate tuition rates, the form must be sent from the appropriate department to the Graduation Check office by Wednesday of the third full week of the first semester the student is enrolled in courses to count toward the second baccalaureate degree. Applications submitted after this point in the semester will not affect the student's classification (undergraduate, second baccalaureate degree) until the following semester. Students must complete a minimum of 30 semester hours in residence to qualify for the second bachelor's degree.

Students who have completed their baccalaureate degree at another institution and seek a second baccalaureate degree at UNC must complete an admission application through the UNC Admissions office and are required to pay undergraduate tuition rates.

Undergraduate Admission

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19 New Freshman Admission

19 Transfer Student Admission

20 International Student Admission

Basis of All Undergraduate Admissions

Admission to the University is based upon standards developed by the Colorado Commission on Higher Education (CCHE). Criteria considered include the secondary school academic record, rank in class, standardized test scores (ACT or SAT) and the academic record at any previous colleges the student may have attended.

New Freshman Admission

Freshman applicants are expected to be high school graduates who have successfully completed a minimum of 15 secondary school units. The academic records of graduates from high schools that are not regionally accredited will be examined in greater depth for admissions purposes.

Students who have not received a high school diploma may be admitted to the University upon receipt of a high school equivalency certificate obtained by satisfactorily completing the General Education Development Test (GED) with an average score of 55 or above.

Freshmen are required to have completed two years of college preparatory mathematics in a secondary school, e.g., two years of algebra or one year of algebra and one year of geometry.

Applicants are expected to have a cumulative GPA of 2.8 or above and to have a minimum composite ACT score of 22 or a minimum SAT combined score of 1000 (890 if SAT was taken before April 1995). However, each applicant is evaluated on an individual basis. Students having higher GPA or class rank may not be required to have standardized test scores as high as those required of students with lower GPAs or class rank. Students with higher standardized test scores may not be required to rank as high in their graduating class. Admission standards are subject to change by the Colorado Commission on Higher Education (CCHE).

Applicants for freshman admission are encouraged to earn secondary school credits in at least the following distribution:

- English — four units with emphasis upon courses in composition.
- Mathematics — three units. All freshmen must have earned credit for at least two years of higher mathematics (algebra or above).
- History/social science — two units.
- Natural science — two units including a laboratory science.

Freshman Application Procedures. Both applications and supporting credentials may be submitted at any time after completion of the junior year of high school. However, they should be received at the Admissions office no later than three weeks before the academic semester in which the student intends to enroll.

Prospective students are encouraged to submit applications as early as possible.

The Application for Admission, the appropriate secondary school transcripts and a \$30 non-refundable processing and evaluation fee must be submitted to the Office of Admissions.

An applicant should take the American College Test (ACT) or the Scholastic Aptitude Test (SAT) and have examination results forwarded to UNC.

Upon receipt and evaluation of the completed Application for Admission and the relevant academic support material, an admissions decision is made. Applicants who provide all required credentials at the time of application receive immediate processing and are notified at the earliest possible date.

Students planning to major in music are required to submit a separate application to the School of Music. The music application is provided by the School of Music upon request or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of these applicants. Information concerning auditions may be requested from the School of Music.

Students planning to major in musical theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from the Coordinator, Musical Theatre Program.

Freshman On-Campus Living Requirements. Full-time freshmen are required to live on campus and carry the 19-meal plan, which includes breakfast, lunch, dinner, Monday-Friday, and brunch and dinner, Saturday and Sunday.

A student who has earned fewer than 24 semester credits is exempt from this requirement if he or she is married or at least 20 years of age at the beginning of the contract period, or is living at and commuting from the home of a parent or legal guardian throughout the contract period. The decision to commute must be made before the beginning of the contract period.

If one of the above exceptions is met, the freshman student must write in advance to the Coordinator for Contract Release, Residence Life, University of Northern Colorado, Carter Hall, Greeley, Colorado 80639. This letter should include name, social security number and detailed documentation supporting the request for an exemption, i.e., marriage certificate, or if living at home, a verifying letter from parent. A written response granting or denying the request will be made promptly. Additional information may be obtained from the Residence Life office.

Transfer Student Admission

To be eligible to transfer, students must be in good academic standing at the college or university most recently attended.

Admission requirements to UNC as a transfer student are based upon the number of credit hours of collegiate work the student has attempted and the cumulative GPA from all schools attended. Students who have completed under 12 semester hours (18 quarter hours) of college work must submit an official transcript from each college attended, along with a high school transcript and

Contacts in This Chapter

<p>Admissions 970-351-2881 Fax: 970-351-2984 Toll-free from Denver 637-3061 E-mail: unc@mail.univnorthco.edu</p>	<p>Denver Admissions Spectrum Building, Suite 560 1580 Lincoln Street Denver, CO 80203 303-831-8550</p>	<p>International Student Services 970-351-2396</p> <p>Musical Theater 970-351-2330</p> <p>School of Music 970-351-2194</p>	<p>School of Nursing 970-351-2293</p> <p>Residence Life 970-351-2721</p>
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ACT/SAT test scores. The admission decision will then be based on freshman admission requirements. Transfer applicants who have completed 12-29 semester hours (18-44 quarter hours) at other institutions are required to have maintained a cumulative grade-point average of 2.50 or better and submit an official copy of their high school and college transcripts as well as a copy of ACT or SAT results. A student who has 30 semester credit hours (45 quarter hours) of transfer credit is required to have earned a cumulative grade-point average of 2.00 or better to be admitted.

Transfer Application Procedures. An Application for Admission and a non-refundable \$30 processing and evaluation fee must be submitted to the Admissions office. Applicants also must submit an official transcript from EACH college or university previously attended. Transcripts are to be sent directly from the other institution(s) to the Admissions office. Final admission status cannot be determined until official transcripts have been received from each institution attended. **NO PORTION OF AN APPLICANT'S PREVIOUS COLLEGIATE RECORD CAN BE DISREGARDED; SHOULD THE APPLICANT FAIL TO LIST ALL INSTITUTIONS PREVIOUSLY ATTENDED, ADMISSION TO UNC MAY BE DENIED OR CANCELED.**

All transfer applications and official transcripts should be received by the Admissions office no later than 12 weeks BEFORE the semester in which the student wishes to enroll.

Transfer students planning to major in music are required to submit an additional application to the School of Music. The music application is provided by the School of Music upon request or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of these applicants. Information concerning auditions may be requested from the School of Music.

Students planning to major in musical theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from the Coordinator, Musical Theatre Program.

Transfer students planning to major in Nursing are required to submit an additional application to the School of Nursing. Application information can be obtained by contacting the School of Nursing.

Transfer Credit. A maximum of 90 semester or 135 quarter hours of academic credit may be accepted from regionally accredited four-year institutions. No more than 64 semester or 96 quarter hours of credit earned at junior or community colleges may be applied towards UNC degree requirements.

A student who has earned a liberal arts-based Associate of Arts or Associate of Science degree or who has completed an equivalent program in General Education as determined by the UNC Admissions office, will receive credit for such work and be excused from the content area of the General Education requirements. Courses required for the skills area are evaluated course-by-course. However, every student must pass the UNC

English Essay Examination before graduation, a requirement that may not be challenged or waived. (See chapter, Graduation Requirements.)

Any credit earned by examination alone (e.g., CLEP credit) will be reevaluated by the Admissions office. This may reduce the number of credit hours allowed for students who have completed a liberal arts-based Associate of Arts or Associate of Science degree.

College work earned 10 years before the baccalaureate degree is to be granted may be applicable toward the UNC degree at the discretion of the applicant's intended major and minor departments.

Previous grade-point averages are used for admissions purposes only and are not carried

forward on the student's academic record at UNC. New transfer students begin a new grade-point average.

To graduate with a baccalaureate degree from UNC, students must earn a minimum of 30 semester hours of credit on the UNC campus. This does not include attendance in UNC off-campus courses. If a community college program corresponds to the requirements of the first two years in a similar program at UNC, graduation after two additional years of study at UNC is possible.

Transfer Course Guide. UNC does not allow transfer of credit from institutions not accredited by a regional association of colleges and secondary schools.

Information concerning transfer to UNC from Colorado community and junior colleges is available in the *UNC Transfer Guide*. Copies of this publication are on file at each Colorado community or junior college and may also be obtained from the Admissions office in Greeley or Denver.

Transfer Status. Transfer students will use the Bulletin (catalog) in the Admissions office at the time of their acceptance to find their General Education requirements.

For the student's major requirements, the Bulletin in effect when the student declares or changes a major will be followed.

Major departments will inform the Admissions office in writing of all major/minor Bulletin changes for incoming transfer students.

International Student Admission

An international student is one who is not a citizen of the United States or who is not classified by U.S. Immigration as a resident alien. International students must meet English proficiency, academic and financial requirements before being fully admitted. These requirements are met by providing all the normal documents required for admission (see description of admission requirements above).

The English proficiency standard may be met by:

1. submitting either a Test of English as a Foreign Language (TOEFL) with a score of 520 or above with a score of no less than 52 on any of the three sections (students applying to the College of Business Administration must score at least 540 on the TOEFL), or
2. submitting test scores of at least 85 from the Michigan Test of the English Language.

Information about the TOEFL may be obtained from the Educational Testing Service for TOEFL,

Box 899, Princeton, New Jersey 08541, or about the Michigan Text from the University of Michigan Press, Ann Arbor, Michigan 42104.

Individual schools or departments of the University may have higher proficiency requirements than those stated above. If a prospective international student is in doubt about these requirements, he or she should contact the Admissions office 970-351-2881.

The Application for Admission and all related credentials except the English proficiency scores must be received by UNC no later than 90 days before the semester that the student wishes to enroll. The scores for the English Proficiency Exam must be received no later than 40 days before the beginning of the student's initial semester at UNC.

Specific inquiries concerning undergraduate foreign student admission should be addressed to the Admissions office. (See chapter, "The Graduate School," regarding graduate international student admission.)

International Student Services is the office that administers the University's relationship with the Immigration and Naturalization Service, issues student visa applications and provides orientation information to new students.

Undergraduate Graduation Requirements Including General Education

21 Bachelor's Degree

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Bachelor's Degree

A bachelor's degree is an academic title granted to a student who has completed a specific course of study. Degree titles are authorized by the Colorado Commission on Higher Education and programs leading to the degrees are administered by the University, a college, a department and sometimes a program board or coalition of faculty.

The faculty of UNC has established five general requirements that a student must meet to earn a baccalaureate degree:

- earn a minimum of 120 semester credit hours.
- have a University of Northern Colorado cumulative grade point average of at least 2.00. Certain programs or majors may have additional requirements (e.g., recommendation for teacher licensure requires a UNC cumulative grade point average of at least 2.50).
- have at least 40 credit hours in courses designated as General Education in the Bulletin of the academic year in which the student first completes courses at the University. Community college transfer students may use the *UNC Bulletin* of the academic year in which the student first registered for classes at the community college. The UNC undergraduate Bulletin expires after six years. The General Education program is described later in this chapter.
- meet all requirements for the bachelor's degree in the student's major field of study, as listed in the Bulletin current when the first major is officially declared. In addition, teacher licensure requirements must be satisfied if applicable.
- pass the UNC English Essay Examination.

UNC Bulletin Requirements

Requirements for graduation are checked as follows: requirements for completion of General Education as designated in the Bulletin of the academic year in which the student enrolls and completes his or her first course. The requirements for a major or minor are determined by the Bulletin of the academic year in which the student declares a first major. The undergraduate student has six years to complete his or her academic program using the appropriate Bulletin. When that Bulletin has expired at the end of the six-year limit, the student may select any subsequent Bulletin up to and including the current one, providing the student is or was in attendance at the University during that academic year.

Other Requirements

Minimum Residence. A student must have earned a minimum of 30 semester credit hours in residence on the UNC campus. In addition, 20 of the last 30 semester credit hours of a degree program must be earned in on-campus courses at the University.

Previous Credit Earned. Any college work earned more than 15 years before the time a baccalaureate degree is granted at UNC may be applicable toward a degree at the discretion of the Registrar and the major and minor departments.

Correspondence Credit. A maximum of 30 semester hours of credit in correspondence and/or continuing education courses from UNC

and/or any other institution will be accepted toward graduation. Correspondence credit will not be counted toward the 30 semester credit-hour residency requirement.

All correspondence courses and/or transfer work must be completed, received, graded and recorded before the semester of graduation.

Official Transcripts. Transcripts from all colleges and universities containing transfer credit necessary for completion of degree requirements must be received by the Admissions office before the semester of graduation.

Major and Minor Requirements

A major is a concentration of courses in a student's declared area of primary academic study which, when accompanied by appropriate supporting courses, leads to a degree. Majors are recorded on the student's permanent record. The requirements for a major are specified in the Bulletin of the academic year in which the student declares a major.

A student must meet the General Education requirements as designated in the Bulletin of the academic year in which the first term of completed on-campus courses occurs. Community college transfers may use the UNC Bulletin of the academic year in which the student first registered for classes at the community college.

Certain courses are required for the major, but electives may be selected from a range of alternatives prescribed by the department. Students who are unsure of their major may enter the University as "undeclared." Students should choose a major by the time they have completed 30 credit hours. Undergraduate students may transfer from one major to another by filing a Change of Major/Minor form as long as they meet the requirements of the new department as listed in the Bulletin of the academic year in which he or she declares a first major.

An emphasis area includes specified courses that provide a particular focus within a major. Emphasis areas for majors are recorded on the student's permanent record.

In contrast with a major, an academic minor involves less extensive concentration in a discipline but still imposes specific requirements. An undergraduate minor is a specific set of courses in a subject area or academic discipline. A minor does not alone lead to an academic degree, but may be required by some majors. A minor differs from an emphasis area in that a minor is not a focus within the student's major. The requirements for a minor are specified in the Bulletin of the academic year in which the student declares a first major.

To complete a major from UNC, a student is required to earn a minimum of nine upper-division credits (300-400) in that major while in residence on the UNC campus. To complete a minor, a student is required to earn a minimum of six upper-division credits (300-400) in that minor while in residence on the UNC campus. The student must meet all requirements and pass all courses required by the school/college or department from which he or she selects a major

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Academic Advising Center 970-351-1391	Career Services 970-351-2127	Life of the Mind 970-351-2940	Registrar and Records 970-351-2231
Admissions 970-351-2881	General Education Program 970-351-2707	Mathematical Sciences 970-351-2820	Writing Center 970-351-2056

or a minor. These requirements vary and are specifically stated in the section of this Bulletin that summarizes each academic department's offerings including its major and minor programs.

Each undergraduate student is strongly encouraged to work closely with his or her assigned faculty advisor in selecting General Education courses, major and minor offerings and elective courses from other disciplines.

English Essay Exam Requirement

All undergraduate students, except second bachelor's degree students, must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and may be retaken any number of times. However, there is a fee to retake the examination. Additional information can be obtained from the UNC Writing Center.

Mathematics Requirements

The Department of Mathematical Sciences offers several different mathematics courses that may be appropriate starting points for students who need to take college mathematics. The department strongly desires that students begin their college mathematics by taking the most appropriate course. Toward this end, placement examinations in mathematics have been established. During summer orientation all incoming freshman students take the exam and are placed accordingly.

The following are the most commonly followed sequences of mathematics courses. Choices depend on placement exam score, choice of major/minor and high school mathematics preparation.

1. If you have two full years of high school algebra with a grade of "C" or better:

To satisfy General Education Category 2 only – MATH 190 or STAT 150

To satisfy Business majors – MATH 175-176 or MATH 124-176

To satisfy Elementary Education Teacher Licensure majors – MATH 181-190 or MATH 181-182-190

To satisfy Nursing and some Health Science majors – STAT 250

Majors/minors needing the calculus sequence – MATH 124-125-131-132-233 or MATH 125-131-132-233 or MATH 127-131-132-233 or MATH 131-132-133

2. If you have one year or one-half year of high school algebra with a grade of "C" or better, you will need to complete MATH 190 to satisfy the General Education Category 2 only.

3. Other students will need to complete MAT 105 or MAT 100-105 through Aims Community College (taught on the UNC campus) with a grade of "C" or better, then follow 1. above.

General Education

It is the conviction of the faculty at UNC that the University should provide its students with a solid grounding in the skills they must have in order to be personally independent in thought and action. It should also provide them with an introduction to the full range of concerns that must claim the attention of all those who are well-informed and reflective about the world in which they live.

Central among the skills that are essential for personal independence are self-expression, calculation, rigorous reasoning and the development of one's physical abilities. The courses in composition, mathematics and physical activity included within the program outlined below are designed to provide students with the necessary fundamentals in each of these areas.

A sound university education must, however, involve more than the acquisition of such basic skills. It must also broaden students' intellectual and aesthetic horizons by ensuring substantial familiarity with a wide range of the academic disciplines included within the arts and letters, the social sciences, the natural sciences and those interdisciplinary studies that aim at deepening students' understanding of both their own and other cultures. The courses that fulfill the requirements listed under the heading "content" below have been selected primarily because they are suited to serve this purpose. In addition, these courses will enable students to develop further the skills upon which genuine intellectual autonomy depends.

With the background provided by the General Education program, students should be able to pursue their major studies confident that work in their fields of concentration will not leave them over-specialized. Special care should be given to the choice of electives, as these courses, if well-chosen, can do much to further broaden and deepen one's education.

Requirements. The General Education Program at UNC requires a minimum of 40 semester credit hours selected from three skill areas and four content areas; at least 30 credit hours of these shall be taken in content areas four through seven.

Skills Areas

1. Composition (6 credit hours minimum)

Two courses, one that must be Elementary Composition. The other course can be chosen from among the Intermediate Composition courses listed.

<i>a. Elementary Composition</i>	
ENG 122 College Composition	3
<i>b. Intermediate Composition</i>	
ANT 315 Life History and Culture	3
BA 205 Business Communications	3
AFS 305 Survey of African-American Literature	3
ENG 123 College Research Paper	3
ENG 223 Writing with Sources	3
ENG 225 Communications on a Theme	3
ENG 227 Technical Writing	3
MUS 152 Writing and Scholarship in the Performing and Visual Arts	3
PHIL 101 Critical Thinking and Writing	3
SCI 291 Scientific Writing	3

2. Mathematics (3 credit hours minimum)

One course, chosen from among these listed courses:

MATH 124 College Algebra	4
MATH 125 Plane Trigonometry	3
MATH 127 Elementary Functions	4
MATH 131 Calculus/Analytic Geometry I	4
MATH 175 Topics in Finite Mathematics	3
MATH 190 Mathematics and Liberal Arts	3
STAT 150 Introduction to Statistical Analysis ..	3
STAT 250 Statistics for Health Sciences	3

3. Physical Activity (1 hour minimum)

Lifetime and Leisure Skills

Team Sports:

PE 100 Basketball	1
PE 101 Flag Football	1
PE 102 Soccer	1
PE 103 Softball	1
PE 104 Volleyball	1

Lifetime Sports:

PE 110 Badminton	1
PE 111 Bowling	1
PE 113 Fly Fishing/Trap Shooting	1
PE 114 Golf	1
PE 116 Water Safety Instructor	2
PE 117 Racquetball	1
PE 118 Swimming	1
PE 119 Tennis	1

Adventure/Risk Activities:

PE 125 Backpacking and Hiking	1
PE 126 Canoeing	1
PE 127 Cross-Country Skiing	1
PE 128 Cycling	1
PE 129 Downhill Skiing	1
PE 130 Kayaking	1
PE 131 Orienteering and Wilderness Survival Skills	1
PE 132 Adventure Activities	1
PE 133 Scuba Diving	1
PE 134 Self Defense	1
PE 135 Technical Climbing	1

Exercise and Fitness:

PE 145 Activity for Stress Management	1
PE 146 Aerobics	1
PE 147 Aquacize	1
PE 148 Exercise and Weight Control	1
PE 149 Fitness and Conditioning	1
PE 150 Jogging and Walking	1
PE 152 Swimming Conditioning	1
PE 153 Weight Training	1

Dance and Movement Activities:

DNCE 166 Beginning Ballet	2
DNCE 167 Ballroom Dance	1
DNCE 168 Ethnic Dance	1
DNCE 170 Jazz Dance	1
DNCE 171 Modern Dance	1
DNCE 173 Self-Awareness with Movement	1
DNCE 175 Tap Dance	1
PE 169 Gymnastics	1
PE 174 Social Dance	1

Content Areas

4. Arts and Letters (6 credit hours minimum)

Two courses from two different areas with two different prefixes within the overall category:

a. Fine Arts

ART 181 History of Art I	4
ART 182 History of Art II	4
ART 190 Art Appreciation	3

ART 210 Ceramics for Non-Art Majors	3	MIND 290 Search for Meaning	3	<i>f. Sociology</i>	CH 205 Issues in Health	3
ART 290 Visual Thinking and Visual Images	3	(may be used to meet the requirement in History or Philosophy)		NURS 318 Health Care Systems	3	
DNCE 454 Dance History and Philosophy	2	<i>d. Literature</i>		SOC 100 Principles of Sociology	3	
ENST 385 Art and the Environment	2	ENG 131 Introduction to Literature	3	SOC 120 Introduction to Family Studies	3	
GEP 101 Antiquity and the Classical Age	3	ENG 138 Modernism in Literature	3	SOC 141 Introduction to Criminal Justice	3	
(may be used to meet the requirement in Fine Arts or History or Literature)		ENG 260 Masterpieces of English Literature	3	SOC 170 Social Problems	3	
GEP 102 Evolutions of Cultures	3	ENG 261 Masterpieces of American Literature	3	6. Science and Mathematics (7 credit hours minimum) Two courses from two different areas with two different prefixes within the overall category. At least one course must have an L (laboratory) designation:		
(may be used to meet the requirement in Fine Arts or History or Literature)		ENG 262 Masterpieces of World Literature	3	<i>a. Earth Sciences</i>		
GEP 103 The Modern World	3	GEP 101 Antiquity and the Classical Age	3	AST 100 General Astronomy (L)	4	
(may be used to meet the requirement in Fine Arts or History or Literature)		(may be used to meet the requirement in Fine Arts or History or Literature)		ESCI 265 Earth Science Concepts for Elementary Teachers (L)	3	
HUM 320 The Art of the Film	3	GEP 102 Evolutions of Cultures	3	GEOL 100 General Geology (L)	4	
MIND 181 Great Traditions of Asia: India, China and Japan	3	(may be used to meet the requirement in Fine Arts or History or Literature)		GEOL 110 Geology and Society	3	
(may be used to meet the requirement in Fine Arts or History or Literature)		GEP 103 The Modern World	3	MET 110 Climate and Humans	3	
MIND 288 Contemporary Arts Connections	3	(may be used to meet the requirement in Fine Arts or History or Literature)		MET 205 General Meteorology (L)	4	
MIND 297 Creativity in the Arts	3	HISP 111 Introduction to Hispanic Literature	3	MIND 294 Revolutions in Science	3	
MT 330 History of Musical Theatre	3	MIND 180 Great Ideas of the Western Tradition	3	(may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)		
MUS 140 Introduction to Music	3	(may be used to meet the requirement in Literature or History or Philosophy)		OCN 110 Oceans and Mankind	3	
MUS 204 Music Fundamentals and Experiences	3	MIND 181 Great Traditions of Asia: India, China and Japan	3	OCN 200 General Oceanography (L)	4	
MUS 241 Perceiving the Arts	3	(may be used to meet the requirement in Literature or Fine Arts or History)		<i>b. Life Sciences</i>		
MUS 243 History of Music I	3	MIND 293 Play as a Route to Insight and Creation	3	ANT 130 Introduction to Physical Anthropology	3	
MUS 244 History of Music II	3	(may be used to meet the requirement in Literature or Philosophy)		BIO 100 Exploring Biology	3	
MUS 246 Music in American History and Culture	3	<i>e. Philosophy</i>		BIO 110 Principles of Biology (L)	4	
MUS 340 Survey of History & Literature of Jazz	3	MIND 180 Great Ideas of Western Tradition	3	BIO 111 Survey of Organismal Biology (L)	5	
THEA 130 Introduction to Theatre	3	(may be used to meet the requirement in History, Literature or Philosophy)		BIO 265 Biological Science Concepts for Elementary Teachers (L)	3	
THEA 330 History of Theatre I	3	MIND 290 Search for Meaning	3	BOT 270 Economic Botany (L)	3	
THEA 331 History of Theatre II	3	(may be used to meet the requirement in History or Philosophy)		FND 250 Principles of Nutrition	3	
<i>b. Foreign Language</i>		MIND 293 Play as a Route to Insight and Creation	3	MIND 294 Revolutions in Science	3	
CHIN 101 Beginning Chinese	5	(may be used to meet the requirement in Literature or Philosophy)		(may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)		
CHIN 102 Elementary Chinese II	5	<i>e. Philosophy</i>		ZOO 115 Human Biology (L)	3	
CHIN 201 Intermediate Chinese I	3	MIND 180 Great Ideas of Western Tradition	3	<i>c. Mathematics</i>		
CHIN 202 Intermediate Chinese II	3	(may be used to meet the requirement in History, Literature or Philosophy)		MATH 132 Calculus and Analytic Geometry II	4	
FR 100 Beginning French	5	MIND 290 Search for Meaning	3	MATH 181 Fundamentals of Mathematics I	3	
FR 102 Elementary French II	5	(may be used to meet the requirement in History or Philosophy)		<i>d. Physical Science</i>		
FR 201 Intermediate French I	3	MIND 293 Play as a Route to Insight and Creation	3	CHEM 101 Chemistry for Citizens	3	
FR 202 Intermediate French II	3	(may be used to meet the requirement in Literature or Philosophy)		CHEM 102 Chemistry for Citizens (L)	1	
GER 100 Beginning German	5	PHIL 100 Introduction to Philosophy	3	CHEM 108 Fundamentals of Chemistry I (L)	5	
GER 102 Elementary German II	5	PHIL 110 Figures in Western Philosophy	3	CHEM 111 Principles of Chemistry I (L)	5	
GER 201 Intermediate German I	3	PHIL 305 Ethics in Theory and Practice	3	CHEM 114 General Chemistry I (L)	4	
GER 202 Intermediate German II	3	5. Social Sciences (6 credit hours minimum)		ENST 235 Chemistry and the Environment	2	
JAPN 101 Beginning Japanese	5	Two courses from two different areas with two different prefixes within the overall category:		MIND 294 Revolutions in Science	3	
JAPN 102 Elementary Japanese II	5	<i>a. Anthropology</i>		(may be used to meet the requirements in Earth Sciences, Life Sciences or Physical Sciences)		
JAPN 201 Intermediate Japanese I	3	ANT 100 Introduction to Anthropology	3	PHYS 220 Introductory Physics I (L)	5	
JAPN 202 Intermediate Japanese II	3	ANT 120 World Archaeology	3	PHYS 240 General Physics I (L)	5	
RUS 101 Elementary Russian I	5	<i>b. Economics</i>		SCI 103 Physical Science for the 21st Century	3	
RUS 102 Elementary Russian II	5	ECON 101 Understanding the Contemporary Economy	3	SCI 106 Introduction to Space Flight	3	
SPAN 101 Elementary Spanish I	5	ECON 103 Introduction to Economics: Macroeconomics	3	SCI 109 The Cosmos	3	
SPAN 102 Elementary Spanish II	5	ECON 105 Introduction to Economics: Microeconomics	3	SCI 265 Physical Science Concepts for Elementary Teachers (L)	4	
SPAN 201 Intermediate Spanish I	3	MIND 286 Value Issues in Political Economy	3	7. Interdisciplinary, Multicultural and International Studies (6 credit hours minimum).		
SPAN 202 Intermediate Spanish II	3	(may be used to meet the requirement in Economics or Political Science)		Two courses, one Multicultural course and one course from either Interdisciplinary Studies or International Cultures:		
<i>c. History</i>		<i>c. Geography</i>		<i>a. Interdisciplinary Studies:</i>		
AFS 201 Afro-American History I	3	GEOG 100 World Geography	3	ENST 100 Introduction to Environmental Studies	3	
AFS 202 Afro-American History II	3	GEOG 110 Geography of the United States and Canada	3	ENST 225 Energy and the Environment	3	
GEP 101 Antiquity and the Classical Age	3	GEOG 200 Human Geography	3	GERO 205 Introduction to Gerontology	3	
(may be used to meet the requirement in Fine Arts or History or Literature)		<i>d. Political Science</i>		HUM 111 The Classical Period Through the Middle Ages	3	
GEP 102 Evolutions of Cultures	3	AFS 420 Black Urban Politics	3	HUM 331 Images of Women in Literature and the Arts	3	
(may be used to meet the requirement in Fine Arts or History or Literature)		MIND 286 Value Issues in Political Economy	3	NURS 200 Women's Health Care	3	
GEP 103 The Modern World	3	(may be used to meet the requirement in Economics or Political Science)		SOC 221 Sociology of Gender	3	
(may be used to meet the requirement in Fine Arts or History or Literature)		<i>c. Geography</i>		<i>b. Multicultural Courses:</i>		
HIST 100 Survey of American History from its Beginnings to 1877	3	GEOG 100 World Geography	3	ANT 317 Contemporary Native American Issues	3	
HIST 101 Survey of American History from 1877 to the Present	3	GEOG 110 Geography of the United States and Canada	3	AFS 100 Introduction to Black Studies	3	
HIST 120 Western Civilization from Ancient Greece to 1689	3	GEOG 200 Human Geography	3	AFS 101 Crisis of Identity	3	
HIST 121 Western Civilization from 1689 to the Present	3	<i>d. Political Science</i>				
HIST 267 Age of Revolution since the 17th Century	3	AFS 420 Black Urban Politics	3			
MIND 180 Great Ideas of the Western Tradition	3	MIND 286 Value Issues in Political Economy	3			
(may be used to meet the requirement in History or Literature or Philosophy)		(may be used to meet the requirement in Economics or Political Science)				
MIND 181 Great Traditions of Asia: India, China and Japan	3	<i>c. Geography</i>				
(may be used to meet the requirement in History or Fine Arts or Literature)		GEOG 100 World Geography	3			

CH 236 Health and Lifestyle Among the Elderly	3
ENG 236 Ethnic American Literature	3
HISP 101 Introduction to Mexican American Studies	3
HISP 102 Hispanic Cultures in the United States	3
HISP 110 Contemporary Chicano Literature	3
HIST 290 American Immigration	3
HRS 290 Introduction to Human Rehabilitative Services	3
MCS 101 Multiculturalism in the United States: Concepts and Issues	3
MIND 182 Confluence of Cultures	3
SOC 237 Sociology of Minorities	3
WS 101 Women in Contemporary Society	3
c. International Cultures Courses:	
ANT 110 World Cultures	3
ANT 314 Sex Roles in Cross-Cultural Perspective	3
BA 251 International Business	3
FR 116 Contemporary France	3
GEOG 335 Geography of Middle America	3
GEOG 365 Russia and Eurasia	3
GER 116 Contemporary Germany	3
HISP 121 Spanish Civilization and Culture	3
HISP 131 Latin American Civilization and Culture	3
HISP 141 Mexican Civilization and Culture	3
HIST 110 African Civilization	3
HIST 112 Asian Civilization I: From Prehistory to the 1600s	3
HIST 113 Asian Civilization II: The Modern Transformation	3
HIST 118 History of Mexico	3
HIST 131 Middle East History II	3
HIST 283 Russian Civilization	3
JAPN 116 Contemporary Japan	3
MIND 289 Coming of Age in the Twentieth Century	3
MIND 292 Ideas in Conflict	3
MUS 247 Music Cultures of the World	3
SPCO 323 Intercultural Communication	3

Notes

- Courses required for the major, but not carrying the major prefix, may count for both General Education and the major. Up to six semester credit hours of courses carrying the major prefix may count for both General Education and the major requirements, provided such courses are listed above as General Education courses.
- Courses required for a minor or second major may count for both the minor or second major as well as General Education, provided such courses are listed above as General Education courses.
- A course taken before the time it appears in a Bulletin as a General Education course will not count for General Education.

Exceptions to Requirements

- Transfer students who have completed equivalent programs in General Education as determined by the Admissions office may be exempted from all or part of the General Education requirements.
- A student who has earned a liberal-arts based Associate of Arts or Associate of Science degree or who has completed an equivalent program in General Education as determined by the UNC Admissions office will receive credit for such work and be excused from the content area of the General Education requirements. Courses required for the skill areas are evaluated course by course and the required number of hours for each skill area must be met. However, every student must pass the UNC English Essay Examination before graduation. This requirement may not be challenged or waived.
- If a student presents an ACT score of 30.0 or higher in English, he or she is exempt from the basic composition area (Skill 1a).
- If a student presents an ACT score of 26.0 or higher in mathematics, he or she is exempt from the mathematics area (Skill 2).

- A student may challenge a General Education course and receive an exemption by registering for the course and passing the challenge examination. Interested students should contact the appropriate department to determine the availability of a challenge examination.
- CLEP examinations are available for General Education credit. The student should contact Career Services for information relative to the CLEP program.

Elementary Education Licensure: General Education

The following liberal arts courses are recommended to meet the requirements in the Regular General Education Program for Elementary Education Licensure students.

Category 1: Composition	
a. Elementary Composition ENG 122	3
b. Intermediate Composition (course to be chosen from Category 1.b of General Education)	3
Category 2: Mathematics	
Course to be chosen from Category 2 of General Education	3
Category 3: Physical Activity	
Course to be chosen from Category 3 of General Education	1
Category 4: Arts and Letters	
Select two of the following	6
ENG 131,	
HIST 100 or HIST 101,	
MUS 204 or ART 190	
Category 5: Social Sciences	
Select two of the following	6
GEOG 100 or GEOG 110	
PSCI 100	
PSY 120 or PSY 230	
Category 6: Science and Mathematics	
Select two of the following	7
BIO 265	
ESCI 265	
MATH 181	
SCI 265 (4 hours)	
Category 7: Interdisciplinary, Multi-Cultural and International Studies	
Select two of the following	6
One course from Category 7a or 7c of General Education: a. Interdisciplinary or c. International and	
One course from Category 7b of General Education: b. Multicultural	
Select five additional credits	5
Total hours required	40

Notes

- In addition to completing General Education Category 2: Mathematics, students are encouraged to enroll also in MATH 181 Fundamentals of Mathematics I.

Life of the Mind: General Education Option

Life of the Mind is an interdisciplinary project involving faculty members committed to the belief that the General Education curriculum should include courses that cross the boundaries of traditional academic departments to deal with broad intellectual concerns.

The "Life of the Mind" is the unifying theme of all the courses. Through them students are introduced to the great historical traditions of Western and Oriental thought and to the most provocative ideas of the 20th century. The faculty do not present these ideas as accepted truths, but instead faculty and students together explore them as possible answers to the central human questions. Through this exploration, students come to value the social, ethical and spiritual significance of intellectual activity—of the life of the mind.

Every Life of the Mind course is planned by an interdisciplinary team. Some courses are also team-taught, while others are individually taught, but offered by faculty members from several different departments. (For example, MIND 180 is offered by a history professor in fall and by a philosophy professor in spring.)

All courses involve study of key writings. During most class sessions the faculty and students engage in discussion of the meaning and importance of these writings, both in their own times and in the present. In MIND 181, *Great Traditions of Asia*, the class discusses the timeless message of the Indian Hindu classic, the *Upanishads*. In MIND 290, *The Search for Meaning*, the class debates the historical significance and contemporary relevance of Plato's *Apology*. Discussions are interspersed with lectures, slide presentations and films. Life of the Mind classes aim to build students' skills in critical thinking, discussion and writing.

Life of the Mind courses are open to both traditional and non-traditional, older students. Non-traditional students from the Greeley community are encouraged to enroll or audit.

In addition to the classes themselves, a public lecture series, featuring Colorado and national speakers, is an integral part of the Life of the Mind project. The lectures link the courses together and contribute to the intellectual life of the community.

Professional Teacher Education and Other Special Programs

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Professional Teacher Education Programs (PTEPs)

The University of Northern Colorado offers four Professional Teacher Preparation Programs that are designed to prepare teacher-education candidates for Colorado Licensure. The 1996-97 PTEPs include: Elementary Education (K-6), Middle Grades Education in specific and support teaching areas (5-9), Secondary Education in specific teaching areas (7-12), and K-12 Education in the areas of Physical Education, Music Education, Visual Arts Education, and Special Education.

A student interested in obtaining a Colorado Provisional License to teach must apply, be admitted to, and complete one of the PTEPs. Students who have completed a baccalaureate degree, but do not hold a Colorado teacher license, are encouraged to contact the School for the Study of Teaching to receive information on post-baccalaureate programs for teacher licensure.

Application. All students preparing to be teachers must formally apply for admission to a Professional Teacher Education Program. Applications and more information about specific PTEPs may be obtained in the School for the Study of Teaching.

Minimal requirements for provisional admission to a PTEP may include:

- completion of an application form;
- minimum 2.50 cumulative grade-point average for a minimum of 15 credit hours taken at the University of Northern Colorado. Upon entering UNC with 15 semester credit hours, transfer students may apply to a PTEP their first semester on campus, and they will have one semester to establish the requisite GPA. (NOTE: programs/departments have specific grade-point-average and/or credit-hour requirements that may exceed the minimum.);
- fingerprinting and background check as required for Colorado teacher licensure (The fee of approximately \$38 is subject to change.);
- declaration of a major and licensure area;
- documented evidence of experience (25 hours) working successfully with children or youths, and a recommendation from the supervisor of this experience. Examples of appropriate experience: teacher aide, camp counselor, recreational activity volunteer, youth leader.
- registering for and taking the state-mandated Basic Skills PLACE (Program for Licensing for Colorado Educators) Assessment administered by the National Evaluation Systems. (The fee of approximately \$50 is subject to change.) For more information on the PLACE assessment, contact the School for the Study of Teaching;

Upon successful completion of the requirements listed above, a student will be granted provisional admission to a PTEP.

PTEP Admission

- Full admissions requirements may include:
- Benchmark experiences specific to each PTEP;
 - Portfolio review;
 - interview or review by PTEP faculty;

- demonstrated competence in written English (At this time, this requirement may be met with a B or better in ENG 122);

- demonstrated competence in oral English. This requirement may be met with a "B" or better in SPCO 103. Students enrolled in an elementary, secondary or middle grades PTEP also may demonstrate oral proficiency by making an oral presentation before a panel of judges. Contact the School for the Study of Teaching and Teacher Education for information on the oral proficiency presentation. Students without an extensive background in public speaking are highly encouraged to enroll in SPCO 100/103;

- recommendation of the program/major department(s) including compliance with program/major department minimum grade-point average (s) and specific course and credit requirement.

Teacher-education candidates are not assured admission solely on the attainment of minimum course and grade requirements or test scores. See the School for the Study of Teaching for more information.

PTEP Basic Requirements

Standards of Professional Practice. Teacher Education candidates seeking admission or who have been admitted to the Professional Teacher Education Program are expected to maintain accepted standards of professional ethics in all aspects of their work in their program. These expectations are noted in the Colorado Department of Education rules for the administration of the Educator Licensing Act of 1991. The PTEP faculty will periodically review the suitability of teacher-education candidates for admission to and continuation in their program. Teacher-education candidates who do not attain or uphold such standards are subject to academic sanctions, including denial, suspension, or dismissal from the program.

Approvals for Student Teaching. UNC teacher-education candidates must maintain program/major department requirements in their Professional Teacher Education Program. They must successfully pass the Basic Skills PLACE Assessment and meet PTEP requirements to be approved for a student-teaching placement.

Program Assessments. The State of Colorado has mandated that institutions of higher education undertake assessment of students and their academic programs. It is the responsibility of students to participate in any assessment activities that are determined by the PTEPs and the University to meet this state mandate.

Program for Licensing Assessments for Colorado Educators (PLACE). The Colorado Department of Education requires applicants for teacher-education licensure to present scores at or above the qualifying score set by the State Board of Education on three PLACE assessments in addition to the Basic Skills Assessment. They also must take a Liberal Arts and Science Assessment, Professional Knowledge Assessment, and Content Area assessments that have been adopted by the State Board of Education.

Contacts in This Chapter

Honors Program 970-351-2940	Reserve Officer Training Corps (ROTC) • Aerospace Studies (Air Force) 970-351-2061 • Military Science (Army) 970-351-2296	Registrar 970-351-2231	School for the Study of Teaching and Teacher Education 970-351-2702
Professional Teacher Education Programs (PTEP) 970-351-2430			

Current PLACE Assessment fees are as follows:

Educator Content Areas (no performance component)	\$50
Educator Content Areas (with performance component)	\$85
Liberal Arts & Sciences	\$70
Professional Knowledge	\$70

For more information on the state assessment dates and locations for testing, contact the School for the Study of Teaching.

Application for Licensure

Application for Colorado Provisional Licensure. Recommendations are made when teacher-education candidates have successfully completed an approved PTEP. Successful completion includes the following: 1) maintenance of program/major department GPA requirements; 2) completion of the PTEP requirements; and 3) passing the state mandated Basic Skills assessment and all other appropriate PLACE assessments (see above), and 4) any additional requirements imposed by state law or regulation.

Upon successful completion of these requirements, teacher-education candidates are eligible for institutional recommendation to the Colorado Department of Education for licensure in the State of Colorado.

The teacher-education candidate may apply for a license at the end of the semester in which the PTEP is to be completed. Application forms are available in the School for the Study of Teaching

Completed applications are processed as soon as official transcripts are received from the Registrar.

Approved PTE Programs. The UNC Professional Teacher Education Programs prepare teacher-education candidates for the following Colorado State Board of Education approved licensure/endorsement:

- Elementary Education, K-6
- Bilingual/Bicultural Endorsement, K-6, 5-9, (requires completion of the Elementary or Middle Grades PTEP.)
- English as a Second Language Endorsement, K-6, 5-9 (requires completion of the Elementary or Middle Grades PTEP.)
- Middle Grades Education, 5-9
- Music Education, K-12
- Physical Education, K-12
- Secondary Education Specific Teaching Areas, 7-12: English, Foreign Languages: French, German, Spanish; Mathematics; Science: (Includes majors in Biological Science, Chemistry, Earth Science, Physical Science, Physics); Social Studies: (includes majors in Geography, History, Social Science; Speech; and Theatre Arts-Drama)
- Special Education: Profound Needs, ages 0-21
- Visual Arts Education (Art), K-12

Other Licensure/Endorsement Programs. The University also provides Colorado State Board of Education approved programs for special services, added endorsements, and school administration in the following areas:

- Administrators' license, K-12
- Audiologist, K-12
- Early Childhood Special Education, ages 0-5
- Moderate Needs, ages 5-21
- Orientation and Mobility, K-12

- Principals' license, K-12
- Reading Specialist, K-12
- Reading Teacher, K-6, 7-12
- School Counselor, K-6, 7-12
- School Library Media, K-12
- School Nurse, K-12
- School Psychologist, K-12
- Severe Needs, Affective, ages 5-21
- Severe Needs, Cognitive, ages 5-12, 12-21
- Severe Needs, Communication, ages 5-21
- Severe Needs, Hearing, ages 0-21
- Severe Needs, Vision, ages 0-21
- Special Education Director, K-12
- Speech/Language Pathology, K-12

Licensure in Other States. Teacher-education candidates who successfully complete an approved PTEP may be recommended for licensure in other states too. However, completion of the UNC program or acquisition of a Colorado license does not assure licensure in other states because other states may have specific, additional requirements.

Teacher-education candidates who expect to seek licensure in other states may check with the School for the Study of Teaching or correspond with the appropriate state departments of education early in their program to learn of any additional requirements.

PTEP Course Requirements

Each PTEP requires a set of courses and instructional experiences that all students seeking initial licensure must complete regardless of the major. The program ensures that quality and consistency will be available and required of all who wish to teach. The following courses are required for each specific licensure area. Admission to a PTEP is a selective process based on specific criteria. Additional information can be found within the specific major course or licensure area requirements.

Elementary PTEP — Required Courses

Educational Seminar I (courses are to be taken concurrently)

EDF 366 Conceptions of Schooling: Context and Process	4
ET 201 Technology in Education	1

Educational Seminar II (courses are to be taken concurrently)

EPSY 347 Educational Psychology for Elementary Teachers	3
EDSE 430 Exceptional Student in the Elementary Classroom	2

Educational Seminar III (courses are to be taken concurrently)

EDEL 430 Learning about Teaching and Learning and Pre-Service Teaching	6
ET 301 Educational Technology Applications	1

Educational Seminar IV

EDEL 460 Elementary Education Integrated Methods I and Pre-Service Teaching	9
or	
EDEL 470 Integrated Methods II and Pre-Service Teaching	9

Educational Seminar V (courses are to be taken consecutively)

EDEL 460 Elementary Education Integrated Methods I and Pre-Service Teaching	9
or	
EDEL 470 Integrated Methods II and Pre-Service Teaching	9
and	
EDEL 490 Student Teaching and Debriefing Seminar (must be completed in an assigned partner school)	8

Middle Grades PTEP — Required Courses

Pre-Cluster (courses are to be taken concurrently)

EDMG 200 Exploring Teaching: Emphasis in the Middle Grades	2
ET 201 Technology in Education	1

Introductory Cluster (courses are to be taken concurrently)

EDMG 320 Introduction to Middle Grades Education	3
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 311 Including Exceptional Students in the Middle Grades Classrooms	1

Intermediate Cluster 1 (courses are to be taken concurrently)

EDMG 420 Middle Grades Teaching and Learning	3
EDRD 340 Developing Language and Literacy of Middle Grades Students	2
EPSY 348 Educational Psychology for Middle School Teachers	3

Intermediate Cluster 2 (courses are to be taken concurrently)

EDMG 440 Middle Grades Integrated Curriculum and Instruction	5
EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level	2
EDRD 440 Integrating Language and Literature Across the Middle Grades Curriculum	1
ET 301 Educational Technology Applications	1

Middle Grades Internship (courses are to be taken concurrently)

EDMG 490 Middle Grades Student Teaching I	2
EDMG 491 Middle Grades Student Teaching Seminar	1

Secondary PTEP — Required Courses

The following three courses are to be taken concurrently during the first semester of the program:

STEP 160 Introduction to Secondary Teaching	2
STEP 161 Observation and Analysis of Secondary Teaching	1
ET 201 Technology in Education	1

The following three courses are to be taken concurrently:

EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 360 Adaptation, Modification, and Integration of Curriculum for the Secondary Exceptional Learner	3
STEP 262 Observation-Analysis of Secondary Teaching II	1

The following course should be taken prior to the Methods Block:

EPSY 349 Educational Psychology for Secondary Teachers	3
--	---

The following four courses are to be taken concurrently:

STEP 363 Clinical Experience: Secondary	2
EDRD 324 Secondary Content Area Literacy	2
ET 301 Educational Technology Applications	1
Secondary Methods	3-6

Students will select the appropriate method course(s) from these existing classes:

a. EED 341/541 Methods and Materials for Teaching Language and Composition in the Secondary School	3
and	
EED 402 Methods and Materials for Teaching Literature in the Secondary Schools	3
b. FL 341 Methods of Teaching in the Secondary School	3
c. GEOG 410 Teaching Geography in Secondary Curriculum	1
and	
SOSC 341 Teaching Secondary Social Studies (Geography Major)	3
d. SCED 441/541 Methods of Teaching Secondary School Science	3
e. SOSC 341 Teaching Secondary Social Studies	3
f. MED 441 Methods of Teaching Mathematics	3
g. SPCO 352/552 Methods of Teaching Secondary Communication	3
h. THEA 385 Methods of Teaching Drama in the Secondary School	3
STEP 490 Secondary Student Teaching (may be completed in an assigned partner school)	15

Licensure Program for K-12 Music Education Instrumental Music Education — Required Courses

EDFE 270 Field Based Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2
EDRD 425 Reading in the Content Areas	1
EDFE 444 Supervised Teaching	12

Instrumental Emphasis (B.M.E.)

MUS 210 Introduction to Music Education	1
MUS 310 Teaching General Music in Elementary Schools	2
MUS 311 Teaching General Music in Secondary Schools	2
MUS 312 Teaching Instrumental Music in Elementary Schools	2
MUS 317 Teaching Instrumental Music in Secondary Schools	2
MUS 325 Choral Methods and Literature for Elementary and Secondary Schools	1
MUS 331 String Pedagogy and Literature for Instrumental Music Teacher	2
MUS 356 Marching Band Techniques	1
MUS 414 Contemporary Issues in Music Education	2
MUS 450 Seminar in Student Teaching for Music Educators	1

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Vocal/Piano/General Music Education — Required Courses

EDFE 270 Field Based Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2
EDRD 425 Reading in the Content Areas	1
EDFE 444 Supervised Teaching	12

MUS 210 Introduction to Music Education	1
MUS 310 Teaching General Music in Elementary Schools	2
MUS 311 Teaching General Music in Secondary Schools	2
MUS 312 Teaching Instrumental Music in Elementary Schools	2
MUS 324 Choral Conducting and Pedagogy for Elementary and Secondary Schools	2
MUS 325 Choral Methods and Literature for Elementary and Secondary Schools	1
MUS 414 Contemporary Issues in Music Education	2
MUS 450 Seminar in Student Teaching for Music Educators	1

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Licensure Program for K-12 Physical Education

Physical Education K-12 — Required Courses

PTEP Core

EDFE 270 Field Based Experience	2
EDFE 444 Supervised Teaching	15
EPSY 346 Learning and Development for Teachers	2
EDRD 425 Reading in the Content Areas	1
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2

PE/PTEP Courses

PE 266 Seminar in Management and Instruction in Physical Education	1
PE 466 Seminar in Student Teaching for Physical Educators	3
PE 344 Clinical Experience in Teaching Physical Education*	3
PE 345 Methods of Teaching Elementary Physical Education*	2
PE 346 Methods of Teaching Secondary Physical Education*	2
PE 347 Tests & Measurements in Physical Education*	2
PE 432 Adaptive Physical Education	2

*Methods block courses must be taken concurrently

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Outdoor Physical Education — Required Courses

PTEP Core

EDFE 270 Field Based Experience	2
EDFE 444 Supervised Teaching	15
EPSY 346 Learning and Development for Teachers	2
EDRD 425 Reading in the Content Areas	1
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2

PE/PTEP Courses

PE 266 Seminar in Management and Instruction in Physical Education	1
PE 466 Seminar in Student Teaching for Physical Educators	3
PE 344 Clinical Experience in Teaching Physical Education*	3
PE 345 Methods of Teaching Elementary Physical Education*	2
PE 346 Methods of Teaching Secondary Physical Education*	2
PE 347 Tests and Measurement in Physical Education*	2
PE 432 Adaptive Physical Education	2

*Methods block courses must be taken concurrently

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Licensure Program for K-12 Special Education: Profound Needs Special Education — Required Courses

PTEP Requirements — 23 semester hours

EDFE 270 Field Based Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling: Context and Process	4
EDRD 425 Reading in the Content Areas	1
EDFE 444 Supervised Teaching	12
ET 201 Technology in Education	1
ET 301 Educational Technology Applications	1

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Required Special Education Credits — 21 semester hours

EDSE 300 Foundations and Communication in Special Education	3
EDSE 301 Development and Learning in Exceptional Students	3
EDSE 302 Educational Interventions for Meeting the Needs of Exceptional Individuals	3
EDSE 400 Introduction to Students with Profound Needs	3
EDSE 402 Assessment of Students with Profound Needs	3
EDSE 403 Methods of Teaching Students with Profound Needs, Birth to 8 Years	3
EDSE 404 Methods of Teaching the Severely/ Profoundly Handicapped, 9 to Adult	3

Licensure Program for K-12 Visual Arts Education

Visual Arts PTEP Courses

ART 248 Art for the Exceptional Child	2
ART 340 Clinical Experience: K-12 Art	2
ART 440 Foundations of Art Education	2
ART 441 Cultural Studies in the K-12 Curriculum	2
ART 442 Curriculum and Instruction in Art: Studio Strategies	2
ART 443 Computer Technology in Art Education	2
ART 466 Visual Arts Student Teaching Seminar	1

PTEP Core Courses

EDFE 270 Field Based Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conception of Schooling: Context and Process	4
EDSE 410 Exceptional Student in the Regular Classroom	2
EDRD 425 Reading in Content Areas	1
EDFE 444 Supervised Teaching	12

Additional Pre-Professional Courses

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Honors Program

The University Honors Program is designed to offer exceptional students both the resources of a comprehensive university and the individual attention traditionally associated with a small college. It asks that they be alive to the life of the mind and pushes them to raise the expectations they have for themselves and their education. It seeks to involve them in learning, heighten their critical awareness and stimulate them to ask: "How should I act?"

Students are urged to join the Honors Program as freshmen, but they may enter up to the second semester of their junior year. Entering freshmen should be in the top 10 percent of their graduating class academically, or should have scored in the top 10 percent on the ACT or SAT exams. Prospective Honors students already enrolled at UNC or transferring from another college need a minimum GPA of 3.25. All

applications must be accompanied by two letters of recommendation from teachers and a written statement of intent. Students with a GPA of less than 3.25 may be accepted on provisional status. If, after two semesters of academic work, they have maintained a GPA of at least 3.25 and have received a grade of at least "B" in two MIND-designated courses, they can earn formal acceptance into the Honors Program even if their cumulative GPA is still below 3.25. Applications and inquiries should be directed to the University Honors Program.

The Honors Program of study has two general categories. First, the General Education core asks students to take MIND classes that emphasize an interdisciplinary approach to the analysis and discussion of great books and significant ideas. Students also will take one of two Honors Connections Seminars, which are open exclusively to Honors participants. The second category of study for the Honors Program concerns enrichment work and a senior thesis within a student's chosen discipline.

Honors Program General Education Core

Honors students are urged to take either Package I or Package II of General Education courses as listed below:

Package I — 11 Semester Hours

MIND 180 Great Ideas of the Western Tradition	3
MIND 181 Great Traditions of Asia	3
MIND 294 Revolutions in Science	3
HON 100 Honors Connections Seminar I	2

Package II — 11 Semester Hours

HON 200 Honors Connections Seminar II	2
and	
MIND 180 Great Ideas of the Western Tradition	3
or	
MIND 181 Great Traditions of Asia	3
or	
MIND 294 Revolutions in Science	3
A MIND course dealing with "knowing yourself and your values." Among the courses suggested for this category are:	
MIND 286 Value Issues in Political Economy ...	3
or	
MIND 290 Search for Meaning	3
or	
MIND 293 Play as a Route to Insight and Creation	3
A MIND course dealing with "knowing your world and times." Among the courses suggested for this category are:	
MIND 288 Contemporary Arts Connection	3
or	
MIND 289 Coming of Age in the 20th Century	3
or	
MIND 292 Ideas in Conflict	3

Junior and Senior Honors Program Enrichment Work

Honors students are required to take both of the following within their chosen discipline:

HON 351 Junior Honors Seminar	2
HON 451 Senior Honors Research Thesis	4

Summary of Honors Program

General Education courses in either Package I or II	9
Honors Connections Seminar I or II	2
Junior Honors Seminar	2
Senior Honors Research Thesis	4
Total Semester Hours for Honors	17

To stay in the Honors Program, students are expected to register for a full-time program and to maintain at least a 3.25 GPA.

Graduating Honors students will receive recognition during the commencement ceremonies, on their diploma, and a notation on their transcript that they have graduated from the University Honors Program.

Reserve Officer Training Corps (ROTC)

Students may earn a minor in either Military Science (Army) or Aerospace Studies (Air Force). The programs are designed to prepare students to assume leadership as officers in the United States Army or Air Force.

The required courses are unique to each service and focus on the development of each cadet's leadership style. Leadership is learned, applied, and evaluated by cadre and cadets through practical exercises, laboratories, and participation in either the Army Advanced Camp or the Air Force Field Training Course. Numerous scholarships are available, and contracted cadets receive a monthly, tax-free allowance.

Minor in Aerospace Studies (Air Force)

General military credits	8
Professional officer credits	12
Total credits required for this minor	20

Required Credits — 8 semester hours

AS 101 The Air Force Today I	2
AS 102 The Air Force Today II	2
AS 201 Development of Air Power I	2
AS 202 Development of Air Power II	2

Professional Officer Credits — 12 semester hours

AS 301 Air Force Leadership and Management I ...	3
AS 302 Air Force Leadership and Management II ...	3
AS 401 National Security Forces in Contemporary American Society I	3
AS 402 National Security Forces in Contemporary American Society II	3

Notes

Students normally complete the four-week Field Training Course with four semesters remaining before graduation and prior to entering the Professional Officer Course (AS 300- and 400-level courses). Students can complete the six-week Field Training Course and receive up to eight hours of transfer credit for general military course credits.

The General Education mathematics courses satisfy the requirement of completing a mathematical reasoning course. Scholarship cadets must take an English composition course, which is satisfied by the General Education English composition requirement.

Minor in Military Science (Army)

Required credits	13
Required elective credits	8
Additional credits	6-15
Total credits required for this minor	27-36

Required Credits — 13 semester hours

HIST 250 War in Historical Perspective: Topics ...	3
MS 311 Leadership Assessment	3
MS 321 Applied Leadership	3
MS 401 Staff Functions and Leadership Principles	1
MS 421 Role and Ethics of the Officer	3

Required Elective Credits — 8 semester hours

Select the following:

MS 111 Introduction to Military Skills I	2
MS 121 Introduction to Military Skills II	2
MS 211 Contemporary Management Principles	2
MS 221 Dynamics of Military Operations	2
or	
MS 287 Leadership Development and Introduction to Military Operations	8
or	
MS 387 Practicum in Leadership and Military Operation	8
Complete 3 additional courses approved by the Professor of Military Science	6-15

Notes

The required elective skills courses are designed to give cadets a well-rounded theoretical base of knowledge for military operations and include current training manuals, techniques, and equipment.

To complete the program, students must also take one undergraduate course in written communication skills (i.e., advanced English composition, creative writing, etc.), one course in human behavior (i.e., general psychology, sociology, ethics, etc.), one course in math reasoning and one course in computer literacy.

Graduate School: Policies and Procedures

Contacts in This Chapter

The Graduate School
1620 Reservoir Road
970-351-2831
800-776-4723
Fax: 351-2371
E-Mail:gradsch@sea.univnorthco.edu
Kyle R. Carter, Dean

Off-Campus Degrees
College of Continuing Education
970-351-2944
Denver
303-340-7228
Colorado Springs
719-576-6331

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For policies and procedures that pertain to both graduate and undergraduate students, see pages 12-15.

INTRODUCTION

Graduate Education at UNC. The first graduate degree, a master's degree, was offered by UNC in 1913. In 1929 the Doctor of Education was added, in 1934 the Doctor of Philosophy, and in 1975, the Doctor of Arts. Later, the University added the Doctor of Music Education and, the most recent degree, the Doctor of Psychology, was added in 1984.

Graduate study at UNC involves the graduate student studying under the direction of a qualified member of the Graduate Faculty. Thus, graduate credit is awarded for courses of study taught by duly appointed members of the Graduate Faculty who meet the criteria established by the Faculty Constitution and by the By-Laws of the Graduate Faculty. The exchange of information, ideas, and values that takes place between the Graduate Faculty and highly qualified students is the essence of graduate education.

Students seeking graduate credit must display evidence of superior academic aptitude, achievement, and motivation. Moreover, the demonstration of competence in the discipline as evidenced by written and oral exams, theses, research projects, directed studies, and internships is an integral part of the graduate-education experience. Through cooperative efforts of the Graduate Faculty, the Graduate Council, and the Graduate School, the University seeks to establish an environment in which the graduate student and the Graduate Faculty can achieve the traditional goals of graduate education. Rules and regulations contained herein are intended to help the Graduate Faculty and the graduate student to accomplish the intent and purposes of graduate education.

The Graduate Faculty. Graduate Faculty are appointed by the University President after being recommended by the academic unit, the academic dean, the Graduate Council, and the Graduate Dean. Upon appointment, Graduate Faculty are authorized to teach graduate courses, act as program advisors for graduate students, serve on doctoral committees, and serve on other University committees pertaining to graduate education at UNC. Graduate credit is granted for courses taught by a faculty member who has been appointed to the Graduate Faculty or to the Graduate Lecturer Faculty. No graduate credit is granted for any course taught by a faculty member who is pursuing an advanced degree at this institution. Graduate Faculty members are noted in the listing of UNC faculty in this publication.

In addition to the activities established for Graduate Faculty, members may receive a Doctoral Research endorsement. Only faculty who have the Doctoral Research endorsement may serve as research advisors on doctoral student research committees.

Upon approval by the department/division, the academic dean, and the Vice President for Academic Affairs, the Dean of the Graduate School may appoint, for a two-year period,

selected individuals as Graduate Lecturer Faculty. These faculty may teach specific courses that are approved and/or perform other designated graduate responsibilities.

The Graduate Council. The Graduate Council is a representative faculty council established to represent the Graduate Faculty. It is the responsibility of the Council to recommend policies governing graduate programs and requirements at the University. Members of the Graduate Council are elected from the Graduate Faculty and serve three-year terms.

The Graduate School. The Dean of the Graduate School is the administrative representative of the Graduate Faculty and the Graduate Council and is responsible for all graduate programs. Under the Dean's direction, the Graduate School monitors and enforces the policies and procedures related to graduate education, including those related to admissions, records and graduation.

DEGREES AND PROGRAMS

Master's degrees (M.A., M.M., M.M.E., M.P.H., M.S.) are awarded for a level of academic accomplishment substantially beyond that required for the baccalaureate degree. Programs consist of a coherent pattern of courses, seminars, and supervised learning experiences that culminate in a comprehensive examination and, in some cases, a thesis. Master's programs require a minimum of 30 semester hours beyond the baccalaureate degree plus additional time in preparation for comprehensive examinations and thesis writing.

Specialist in Education degrees (Ed.S.) are awarded for concentrated study and investigation beyond the master's degree. Programs are designed on an individual basis and are sharply focused on a particular academic goal. Specialist's programs may cut across departmental lines but are not offered in all discipline areas. Typically the degree requires a minimum of 30 semester hours beyond the master's degree. Candidates for the degree will culminate their programs by writing a specialist's practicum report.

Doctor of Arts degrees (D.A.) are awarded for completion of content-oriented programs to prepare the candidate for a career in college or university teaching. The student is expected to specialize in a specific field of study but is not expected to specialize in a single facet of the chosen field. General components of the program include coursework in the major area, supervised practica in college teaching, interdisciplinary seminars in college teaching, and a dissertation involving a significant teaching/ education problem(s) or a traditional research topic. Students are offered considerable flexibility in program development. The degree is not research-oriented, but the recipient will demonstrate research competence by preparing a dissertation designed to support college/university teaching.

Doctor of Music Education degrees (D.M.E.) are awarded for completion of a program to prepare comprehensively trained educator-musicians. The program provides expertise in teaching, supervising, consulting, and administering within elementary and secondary schools, colleges and universities, music education programs, and community cultural projects and programs.

Doctor of Education degrees (Ed.D.) are awarded for completion of professional or practitioner programs designed to prepare candidates for positions of leadership in all fields including elementary and secondary education, higher education, business, industry, government, and the military. These doctoral programs prepare graduates for service in instructional, supervisory, and administrative capacities.

Doctor of Philosophy degrees (Ph.D.) are awarded for completion of the research degree granted only to students who have 1) mastery of definite fields of knowledge to the extent they are familiar both with what has been done in their specific field and with the potentialities and opportunities for further advances, 2) a demonstrated capacity to do original and independent scholarly investigation or creative work in their specific field, and 3) the ability to integrate their specific field or specialization with the larger domains of knowledge and understanding.

Doctor of Psychology degrees (Psy.D.) are awarded for completion of the professional psychology program. A Psy.D. in counseling psychology indicates that the degree holder has specialized training in the area of psychological aspects of counseling/therapy and human behavior. The degree is a professional/practitioner degree at the highest level of university training.

Graduate Programs by College

Emphasis areas indented

College of Arts and Sciences

Biological Sciences, M.A.

Non-Thesis
Thesis

Biological Education, Ph.D.

Chemical Education, Ph.D.

Chemistry, M.A.

Education
Research

Communication, M.A.

Communication Education

Human Communication Non-Thesis Option

Human Communication Thesis Option

Earth Sciences, M.A.

Educational Mathematics, Ph.D.

English, M.A.

Foreign Languages, M.A.

Spanish Teaching

Graduate Interdisciplinary Degree Program, M.S.

Secondary Science Teaching

History, M.A.

Mathematics, M.A.

Liberal Arts

Teaching

Psychology, M.A.

Human Neuropsychology

Social Science, M.A.

Clinical Sociology

College of Education

Agency Counseling, M.A.

Marriage and Family Therapy

Applied Statistics and Research Methods, M.S.

Operations Research

Applied Statistics and Research Methods, Ph.D.

College Student Personnel Administration, Ph.D.

Counseling Psychology, Psy.D.

Counselor Education, Ed.D.

Educational Leadership, M.A.

Educational Leadership, Ed.S.

Educational Leadership, Ed.D.

Educational Media, M.A.

Educational Psychology, M.A.

Educational Psychology, Ph.D.

Educational Technology, M.A.

Educational Technology, Ph.D.

Elementary Education, M.A.

Middle School

Elementary Education: Early Childhood

Education, M.A.

Primary Education

Elementary Education, Ed.D.

Elementary Education: Early Childhood

Education, Ed.D.

Elementary School Counseling, M.A.

Graduate Interdisciplinary Degree Program, M.A.

Education

Reading, M.A.

Elementary

Secondary

Reading, Ed.D.

School Psychology, Ed.S.

School Psychology, Ph.D.

Secondary and Post Secondary School

Counseling, M.A.

College Student Personnel Administration

Special Education, M.A.

Early Childhood Special Education

Moderate Needs

Profound Needs

Severe Needs: Affective

Severe Needs: Cognitive

Severe Needs: Communication

Severe Needs: Hearing

Severe Needs: Vision

Gifted and Talented

Post M.A. Licensure in Special Education,

Administration

Special Education, Ed.D.

College of Health and Human Sciences

Communication Disorders: Audiology, M.A.

Certifying

Non-Certifying

Communication Disorders: Speech/Language

Pathology, M.A.

Certifying

Non-Certifying

Gerontology, M.A.

Direct Service

General Studies

Management/Administration

Graduate Certificate Program (non-degree)

Human Rehabilitation, Ph.D.

Nursing, M.S.

Education

Family Nurse Practitioner

Physical Education, M.A.

Adapted Physical Education

Coaching

Kinesiology

Outdoor/Adventure Physical Education

Pedagogy

Sport Administration

Physical Education, Ed.D.

Kinesiology

Pedagogy

Sport Administration

Public Health, M.P.H.

Community Health Education

Recreation, M.A.

Rehabilitation Counseling, M.A.

Vocational Evaluation

College of Performing and Visual Arts

Music, M.M.

Choral Conducting

Instrumental Performance

Music History and Literature

Theory and Composition

Vocal Performance

Wind/Orchestra Conducting

Music, D.A.

Conducting

History and Literature

Music Performance

Music Theory and Composition

Performance and Pedagogy

Music Education, M.M.E.

Music Education, D.M.E.

Visual Arts, M.A.

Graduate School

Graduate Interdisciplinary Degree Program, M.A.,

M.S., Ed.S., D.A., Ed.D.

Individually Designed Programs

Post-Doctoral Programs

Programs of research and advanced study are available in selected areas to persons holding the earned Doctor of Arts, Doctor of Education, Doctor of Music Education, Doctor of Philosophy, or Doctor of Psychology degree. Work at the post-doctoral level may be taken in areas such as administration, college student personnel administration, educational psychology, counseling psychology, elementary education, special education, statistics, and other disciplines. The specific research project or program of study is planned by the post-doctoral student in conference with a faculty committee appointed to advise the student throughout the program and to assess the student's progress at the end of the program.

Admission information is available in the Graduate School. Post-doctoral admission is granted on an individual basis.

ADMISSION PROCEDURES

Admission to Graduate School is granted by the Graduate Dean based on an evaluation of eligibility and a recommendation from the program faculty. No one is admitted to the University of Northern Colorado Graduate School until she/he receives an official letter of admission from the Graduate Dean.

Individuals must apply to the Graduate School for admission to specific degree and licensure programs of interest. The applicant must meet minimum admission standards, as established by the Graduate Council, for admission to the UNC Graduate School.

The Graduate School has instituted a "student-administered" application procedure in which each applicant is required to collect all the materials required for admission and submit them at one time to the Graduate School. These completed applications are then expeditiously reviewed by the Graduate School and prepared for screening by the appropriate academic department/division/school.

Departments/divisions/schools may require additional materials or procedures beyond the Graduate School requirements listed below. It is the responsibility of the applicant to contact the unit offering the degree, licensure or certification program to which she/he is seeking admission to determine additional materials or procedures required.

To apply for admission, the student must:

1. Complete the appropriate application forms, which are included in the Graduate Application packet available from the Graduate School, unless otherwise noted. Completed packet materials should include:

- Graduate School Application for Admission, required of all U.S. citizens who are applicants for degree, licensure or certification programs. The International Student Application for Graduate Admission is required of all applicants for degree programs who are not U.S. citizens. This packet, available separately from the Graduate School, includes special sections related to financial resources and immigration information required of all foreign nationals who plan to study in the United States.

- Plan to Seek Institutional Recommendation for Licensure, required of all applicants seeking teacher licensure or other professional endorsement.

- Notice of Intent to Apply, required only of applicants who plan to seek admission to a degree program offered at an off-campus site under the UNC College of Continuing Education.

Because not all degree programs are offered off campus, the student must check to be sure the program selected will be offered at the

particular site where she/he plans to enroll. (The list is available from the College of Continuing Education site coordinators or the Greeley office, phone 970-351-2944.)

2. Obtain two official transcripts from every accredited college or university, including the University of Northern Colorado, attended since completion of high school. The student must request that the registrar of each school attended send the two official copies directly to her/him. The student must have the original official transcripts from each college even if courses taken at one institution are listed on another school's transcript. This accreditation requirement of the University will not be waived. If the transcripts show a maiden name or a name different than that on the UNC Application for Admission, all names used should be added to the UNC application.

3. Obtain test scores for Graduate Record Examination, as applicable, or other standardized test scores required for admission by the program or the Graduate School (e.g., MAT, GMAT, TOEFL, etc.). The student must request that official GRE scores be sent to the Graduate School from the administering organization for admission to any doctoral program: **NO DOCTORAL STUDENT APPLICATION WILL BE PROCESSED UNLESS IT INCLUDES GRE SCORES LESS THAN FIVE YEARS OLD.** With a written request to do so, the Graduate School may evaluate the completed application from an unofficial copy of the scores. A regular admission can occur only after the official scores are received from the Educational Testing Service.

Master's applicants to programs requiring the GRE can be evaluated by the Graduate School for admission without the test scores, but may have admission decisions by the department/division delayed until the test scores are available.

International applicants must have official copies of their GRE test scores sent to UNC. These scores will remain in the applicant's file as part of the permanent admission record.

4. Obtain THREE Letters of Recommendation if the applicant seeks admittance to a doctoral program. These must be from persons who can evaluate the applicant's ability to succeed in doctoral study. Similarly, persons seeking the Non-Baccalaureate Graduate Admission or admission to the Graduate Interdisciplinary Degree Program must have appropriate letters of reference. General recommendation forms are included with the Application for Admission. However, many programs have developed their own reference forms. The applicant must be sure that she/he has the correct reference forms.

5. Submit ALL materials required for admission screening. These must be collected and then submitted in a single packet along with the processing fee to the Graduate School, University of Northern Colorado, Greeley, CO 80639. Applicants for special admissions categories, such as the Non-Baccalaureate or the Graduate Interdisciplinary Program, must provide all other materials as requested in Graduate School guidelines for such special admission. Applicants must allow the Graduate School at least 20 working days for the materials to be processed, evaluated, and prepared for screening by the academic department/division. This is particularly important during the peak application period, December through April. Failure to submit all required materials may significantly delay the evaluation and screening.

6. Provide evidence of meeting specific program requirements. It is the responsibility of the applicant to contact the chair or graduate coordinator of the program to which she/he is seeking admission to obtain the program-level admission standards and application requirements, particularly those that are in addition to the general Graduate School requirements. The student should not wait until she/he has submitted the application packet to the Graduate School to avoid incurring delays in the department/division/school admission screening.

Failure to submit the materials required by the specific program to which the student seeks admission may lead to a denial of admission due to an incomplete application.

7. Submit a Notice of Intent to Apply form for an off-campus degree program. Individuals seeking admission to a degree or certification program offered at one of UNC's off-campus sites must submit a completed Notice of Intent to Apply to the UNC Continuing Education site office where they plan to enroll. Degree programs in Speech Communication, offered in Colorado Springs, and Agency Counseling, offered in Denver, are continuous enrollment programs. Applications and fees for these programs may be submitted at any time. However, most UNC off-campus programs have specific beginning and ending dates and are designed to enable a "cluster" of admitted students to move together through the same schedule of classes. The Notice of Intent to Apply must be submitted to the College of Continuing Education in order for the College to determine whether or not there are enough applicants to offer the program at the site. The student must contact the College of Continuing Education office (Denver 303-340-7228 or Colorado Springs 719-576-6331) for this form, for application deadlines, or for more information, and must allow at least 20 working days for the Graduate School to process application materials BEFORE the Continuing Education application deadline.

ADMISSION REQUIREMENTS

Admissions Criteria. The Graduate Council, comprised of representatives from the Graduate Faculty, sets minimum standards for admission to the Graduate School. Faculty in each degree program establish admissions standards for their specific program, which often exceed the minimum. Applicants should consult program brochures, departmental offices or faculty in degree program(s) of interest to obtain any additional admission requirements.

Conditional Admission. Conditional admission can be granted pending the receipt of application requirements specified by the Graduate School. However, no student will be permitted to register for an additional semester, receive financial aid or take the comprehensive examination or its equivalent unless the specified requirements are met during the first semester of the student's program.

Admission Deadlines. Departments/divisions may set deadlines for review of applications for admission for any term, but they must allow sufficient time for Graduate School handling and evaluation. This typically means students must submit materials early enough to allow at least 20 working days for the Graduate School to complete all processing upon receipt of a completed application BEFORE sending application materials to the departments/division for screening. It is particularly important for programs requiring GRE scores and having early admission deadlines to notify applicants of this requirement.

While the Graduate School will not set standard priority admission deadlines, each program is encouraged to determine program-specific deadlines they will use and to work closely with the Graduate School to ensure that these deadlines are feasible.

Admission Expiration Date. Admission to any graduate program remains valid for one calendar year after the first day of the applicant's proposed semester of enrollment. If a student does not begin coursework during that year and if admission requirements have changed, the student will be required to satisfy the new admission requirements, or may be reviewed for admission again.

Requirements by Degree Master's and Specialist's Degrees

Each applicant to a master's degree program must possess a baccalaureate degree from an accredited college or university with a grade

point average from the baccalaureate degree of at least 3.00 on a 4.0 scale. The GPA will be taken from the transcript of the degree-granting institution and must be based on a minimum of 60 semester hours/90 quarter hours. If there is no GPA on the transcript or the GPA is based on fewer than 60 semester hours, the Graduate School will calculate the GPA on the last 60 hours of coursework in the undergraduate degree.

"Window" Policy for Licensure, Master's and Specialist Students.

1. Each of these graduate programs is expected to limit the number of students admitted with less than a 3.0 grade-point average on the most recent prior degree ("exceptional admits") to less than 20 percent of currently active students.

2. If the program's full cohort of currently active students exceeds the 20 percent maximum, the Graduate Dean may choose not to approve recommendations for new "exceptional admits."

3. In recommending students as "exceptional admits," program faculty should indicate on the screening packet the other factors that support their recommendation including those that support the potential of the candidate to perform at the 3.0 GPA level.

4. Programs are encouraged to provide appropriate, early intensive advising to these students and to offer guidance in areas in which grades were below standard, as well as identification of undergraduate deficiencies that should be remedied before enrollment in graduate courses in their program.

5. The Graduate School will conduct an annual assessment to determine the number and percentage of currently active students who are "exceptional admits"; and to compare their performance and progress to the other students. Faculty are expected to encourage students who have effectively left their programs to notify the Graduate School in writing in order to correctly determine the number of active students.

6. Requests and rationales for exceptional admissions, as well as monitoring reports, will be filed by the Graduate School and consulted during program review.

Admission to the Non-Baccalaureate Master's Degree. An individual without a baccalaureate degree or with one from a non-accredited institution may be admitted to a master's degree program by submitting an application that shows the applicant has at least the equivalent of a two-year college education and the ability to do graduate work. Evidence must be included that the applicant has completed the General Education requirements of UNC or their equivalent, has an in-depth knowledge in the proposed area of study, and has the ability and preparation to pursue graduate work in the proposed major area. The applicant must follow the student-administered application procedure described under Graduate Application Procedures and submit the following materials:

1. Graduate School application for admission to a master's degree program, two complete sets of official transcripts, a non-refundable application fee to the Graduate School, and Graduate Record Examination test scores (50th percentile or above) or the Miller Analogies Test scores (50th percentile or above for intended majors).

2. A comprehensive written statement of career goals, objectives and rationale for pursuing a master's degree program.

3. Current resume summarizing academic and professional experience, publications, and activities. The applicant's resume must present evidence of in-depth knowledge in the proposed area of study and ability to pursue graduate study in the selected major as indicated by many years of work experience with progressively increased responsibility in a field related to the proposed degree program.

4. Three letters of recommendation attesting to the applicant's ability and qualifications to successfully pursue graduate study from an academically qualified person.

All non-baccalaureate applicants should apply as UNC undergraduate transfer students before being considered for this degree program in order to receive official evaluations of General Education and the courses required to complete an undergraduate degree in the proposed major. General Education at UNC is a program consisting of a minimum of 40 (semester) credit hours selected from three skill areas and four content areas. (Check this Bulletin for a listing of the approved courses.) Satisfaction of these criteria will be verified by the Graduate School.

Evidence of in-depth knowledge of the field in which he or she intends to do graduate work based upon breadth and depth of an undergraduate degree program in the same or a closely related discipline could include, but is not limited to, college-level coursework with a 3.0 grade point average; vocational, industrial and military courses; advanced placement test scores; CLEP Subject Examination scores; and publications, performance and extensive work experience in the field of the proposed graduate degree. Satisfaction of these criteria will be verified by the Graduate School and the pertinent department/division/school.

Evidence that the non-baccalaureate applicant can function academically at the graduate level would include the items listed above as well as additional indications of academic potential such as lectures presented, honors awarded, letters of recommendation attesting to the academic potential of the applicant, etc. The department/division/school in which the student proposes to study also may have additional graduate admission requirements.

Applicants are encouraged to consult with the Graduate Student Advisor or the Associate Dean of the Graduate School before submitting an application. The completed application will be reviewed by the Non-Baccalaureate Coordinating Committee and, if approved, will be sent to the department/division/school offering the degree program for consideration for admission or denial.

Admission with Baccalaureate from a Non-Accredited Institution. These applicants will be considered for admission on the basis of the criteria used for the admission of applicants to the Non-Baccalaureate Degree Program (see above). "Non-accredited" refers to the accreditation status of the institution at the time the applicant attended the institution. Applicants applying under the provisions of this program may not take graduate-level courses until they are officially admitted.

Doctoral Degree

Each applicant for the doctoral degree must:

1. possess a baccalaureate degree from an accredited college or university,
2. submit three letters of recommendation confirming that the applicant has the ability to do doctoral work in the proposed discipline(s),
3. have a minimum level of achievement combining GPA and GRE performance.

Consistent with the guidelines published by Educational Testing Service, the Graduate School does not apply a strict GRE cutoff score. Instead, it uses a decision matrix that combines GRE general test scores and GPA in order to allow higher performance in one area to compensate for lower performance in another.

Although students may meet Graduate School criteria through multiple combinations of GPA and GRE scores, the following "rule of thumb" can be used to determine admission: Doctoral applicants meet the Graduate School minimum criteria for admission if they have a GPA of at least 3.0 on a 4.0 scale on the most recently completed degree, scores of at least 400 on each section of the three sections of the Graduate Record Examination general test and a combined GRE score of at least 1500. The actual determination is based upon the GPA/GRE matrix available from the Graduate School.

The GRE must have been taken within five years of the term that enrollment is projected to begin. The GPA must be based on a minimum of 60 semester hours/90 quarter hours for a baccalaureate degree or a minimum of 30 semester hours/45 quarter hours for the master's degree. If there is no GPA on the transcript or the GPA is based on fewer than the minimum hours, the Graduate School will calculate the GPA on the last 60 semester hours/90 quarter hours of coursework in the most recently completed degree or on the total master's degree, whichever is less.

UNC doctoral programs do not use quantitative rating systems and standard criteria weightings as sole determining factors for acceptance decisions. Quantitative information, such as GPA or GRE or MAT scores, is considered in combination with qualitative information derived from letters of recommendation, applicant goal statements, as well as past academic and professional accomplishments. Due to the specialized nature of doctoral work, it is incumbent on the Graduate Faculty to use their professional judgment in determining to what extent a student is qualified for entry into a particular program. The information requested by each of the departments/divisions, upon which their decision is to be based, gives the Faculty the opportunity to thoroughly and carefully evaluate the strengths and potential of each applicant.

Each application introduces a unique combination of qualifications for a program of doctoral study. Decisions to accept or deny a potential doctoral student admission must include thorough consideration of all information pertinent to the applicant's qualifications and must include sensitivity to diverse applicant backgrounds. Only in this way can strict adherence to and consideration of affirmative action policies be maintained. The doctoral student selection process thus avoids undesirable, restrictive, and potentially capricious decisions that can arise from over-reliance on purely quantitative selection criteria.

Departments/Divisions/Schools offering doctoral programs may recommend admission that is based upon supplemental/alternate criteria that they have established with approval of the Graduate Council. The student must check with the appropriate area regarding such alternatives.

"Window" Policy for Doctoral Students

1. Each doctoral program is expected to limit the number of students admitted whose GPA and GRE scores do not meet the minimum admission standards of the Graduate School ("exceptional admits") to less than 20 percent of currently active students.

2. If the program's full cohort of currently active doctoral students exceeds the 20 percent maximum, the Graduate Dean may choose not to approve recommendations for new "exceptional admits."

3. In recommending doctoral students as "exceptional admits," program faculty should indicate on the screening packet the other factors that support their recommendation including those that support the potential of the candidate to perform adequately in areas where they scored poorly on the GRE or performed poorly in academic work.

4. Programs are encouraged to provide appropriate, early intensive advising to these students and to offer guidance in areas in which grades or test scores were below standard, as well as identification of potential deficiencies that should be remedied before enrollment in graduate courses in the degree program.

5. The Graduate School will conduct an annual assessment to determine the number and percentage of currently active students who are "exceptional admits"; and to compare their performance and progress to the other students. Faculty are expected to encourage students who have effectively left their programs to notify the Graduate School in writing in order to correctly determine the number of active students.

6. Requests and rationales for exceptional admissions, as well as monitoring reports, will be filed by the Graduate School and consulted during program review.

Interdisciplinary Degree: Admission and Program Requirements

The Graduate Interdisciplinary Degree Program is designed to be a rigorous program of quality that will give an opportunity to qualified students to meet career goals by combining two or more disciplines into a single degree program. To ensure its quality, the program requires close supervision of students, participation, and coordination by all assigned committee members of each discipline concerned. It is imperative that the program be truly interdisciplinary and represent an integration of the subject matter of the component disciplines. Programs that parallel other degree programs are not acceptable as interdisciplinary degree programs. Applicants are encouraged to consult with the Graduate Student Advisor or the Associate Dean of the Graduate School before submitting their applications. The applicant must follow the student-administered application procedure described earlier under Graduate Application Procedures. The complete application packet should include the following items:

1. The degree application located in Guidelines for Interdisciplinary Degree Programs, available from the Graduate School, and the non-refundable application fee.

2. Two official copies of the applicant's transcripts from all colleges or universities attended (including UNC) that contributed to previous degrees and any graduate work for which credit is intended to apply to the proposed program.

3. In applications for a doctoral program, one official copy of the applicant's GRE General Test scores (not more than five years old) sent from Educational Testing Service to the Graduate School. A student copy of the GRE results will be accepted in the packet for processing to the program area.

4. Three letters of recommendation from appropriate professional sources attesting to the applicant's ability to pursue the intended program.

5. A detailed written statement of career goals and objectives and a rationale for pursuing the proposed interdisciplinary program. This must be a compelling statement clarifying why no single existing degree program can satisfy these goals.

6. Identification of two primary disciplines (departments/divisions) that will be combined in the proposed program. At least one of the primary disciplines listed must offer a program leading to the desired degree, i.e., M.A., M.S., Ed.S., D.A., or Ed.D. Secondary disciplines also may be included.

7. A current resume that summarizes academic and professional experiences, activities, publications, and other pertinent information.

Preliminary Review. The Graduate Interdisciplinary Degree (GIDP) Coordinating Committee, comprised of interdisciplinary coordinators from each college, will conduct a mid-semester preliminary review of all completed applications that satisfy the minimum admission requirements of the Graduate School. Applicants who do not meet these will be denied admission.

If the Committee finds the application to have merit, the Graduate School will send the application materials to the appropriate GIDP college coordinator who will contact the appropriate discipline units for their evaluation and recommendation. If the Committee finds the application to lack merit or compelling rationale for interdisciplinary studies, the Graduate School will notify the applicant of these concerns, and she/he may resubmit the application materials after addressing the concerns.

Upon receipt of the application materials from the Graduate School, the GIDP college coordinator and the faculty in the appropriate disciplines will evaluate the application and recommend to the Graduate School that the applicant be granted or

denied provisional admission. Each discipline recommending provisional admission must designate an advisor.

All disciplines included in the proposal must recommend provisional admission and must designate Graduate Faculty advisors before the Graduate School confers such status.

Plan of Study. The Plan of Study must meet the criteria noted below:

1. If the Graduate Faculty advisors determine that a student has any deficiencies in her/his background, the proposal must list the coursework necessary to alleviate those deficiencies, and these courses must be completed at the earliest possible date.

2. SRM 600 (master's) or SRM 700 (specialist and doctoral) or one of the research-oriented substitute courses approved by the Graduate Council must be proposed. The proposal must also contain at least one additional research methods, statistics, or applied research course (i.e. computer science, tests/measurements, etc.).

3. Proposed master's-degree coursework must equal at least 30 semester hours of graduate-level courses plus any deficiency credits. Proposed doctoral-degree coursework must equal at least 64 semester hours beyond a master's degree excluding any deficiency credits. If an applicant does not hold a master's degree, the proposed coursework must equal at least 94 semester hours.

4. For master's and specialist degrees, at least 12 semester hours of graduate-level coursework must be proposed in each of at least two primary disciplines (departments/divisions). Courses numbered 622, 699, and 701 may not be used to meet this requirement. For the doctoral degree at least 15 semester hours of graduate-level coursework must be proposed in each of at least two primary disciplines (departments/divisions). If an applicant does not hold a master's degree, the proposed coursework in each of at least two primary disciplines must equal a minimum of 18 semester hours. Courses numbered 622, 797, and 799 may not be used to meet this requirement.

5. Secondary discipline (departments/divisions) are defined as those in which 9 to 11 semester hours of coursework are proposed at the master's and specialist levels or those disciplines in which 9 to 14 semester hours of coursework are proposed at the doctoral level. If identified in the program proposal, these disciplines must assign an advisor and approve the selected coursework.

6. Proposed courses must be offered with sufficient frequency to allow completion of the degree requirements within a reasonable amount of time, e.g., two years for a 30 semester-hour program or three to four years for a 64 semester-hour program. Furthermore, research and library resources must be available to facilitate the completion of the thesis, if applicable, or dissertation.

7. No more than one-third of the proposed courses may be double-numbered courses offered simultaneously for undergraduate and graduate students.

8. No more than 9 semester hours, individually or in combination, of courses numbered 508, 513, or 622 may be proposed or counted in the degree program. If a thesis is proposed for the master's degree, it must be a minimum of 6 semester hours. The specialist degree program must include at least 5 semester hours in the DS, or departmental prefix 701, Specialist Degree Practicum.

9. Doctoral degree must include 4 semester hours of dissertation proposal research (departmental prefix 797) and 12 semester hours of dissertation (departmental prefix 799).

10. Program proposals must conform to all other Graduate School policies and procedures, e.g., transfer of credit.

Program Advisors. For master's and specialist degrees, one of the designated advisors must be named the Program Advisor. For the doctoral degree when there are only two primary disciplines proposed, one of the two designated Graduate Faculty advisors must be named the Program

Advisor. In addition, the two designated advisors and the student must recommend at least one additional Graduate Faculty advisor, subject to approval by her/his department/division/school chairperson and the Dean of the Graduate School.

Before submission to the Graduate School, the Graduate interdisciplinary Degrees Plan of Study form must be signed by the student, all Graduate Faculty advisors, and all primary and secondary department/division chairpersons. Until an approved Plan of Study form is filed with the Graduate School, a "hold" is placed on an interdisciplinary student's ability to register for classes.

Regular Admission. Upon receipt of the completed Graduate Interdisciplinary Degrees Plan of Study form, the Graduate School will forward the form and the original application materials to the GDP Committee for final review. The student, the Graduate Faculty advisors, and the primary and secondary departments/divisions will be notified by letter regarding program approval or disapproval. If the proposal is approved, the student will be granted Regular Admission. Until such a letter is received, the student remains on provisional admission status. The decision of the GDP Coordinating Committee and the Dean of the Graduate School shall be final.

Advising. Together, the Graduate Faculty Advisors are known as the Program Advisory Committee. It is the responsibility of this Committee to assist the student in planning and coordinating the degree program.

Any deviation from the approved proposal must be approved in advance by the Program Advisory Committee and the Graduate Dean.

ALL GRADUATE SCHOOL POLICIES APPLY TO INTERDISCIPLINARY STUDENTS.

Committees. The Specialist Degree Practicum shall be under the direction of a Practicum Supervising Committee. If the members of this Committee are not the same as the members of the Program Advisory Committee, they must be approved by the Graduate School before the start of the practicum.

At the doctoral level, the Program Advisory Committee plus a Graduate Faculty representative appointed by the Dean of the Graduate School shall serve as the Oral Comprehensive Examination Committee. The doctoral dissertation proposal and dissertation shall be under the supervision of a Research Advisor, who is a member of the Graduate Faculty and holds doctoral endorsement, and a Research Committee. A Dissertation Research Committee is not appointed until after successful completion of the oral comprehensive examination.

Comprehensive Examinations. Each interdisciplinary degree program student must pass a written comprehensive examination that is designed, administered and evaluated by the Program Advisory Committee and by other qualified individuals as identified by the Program Advisor. All doctoral students must also pass an oral comprehensive examination (see the Comprehensive Examination sections for more details).

All Graduate School policies related to comprehensive examinations are applicable to interdisciplinary program students except that a Comprehensive Examination Permit will not be released if the student's grade point average is less than 3.00 in any primary discipline (department/division).

International Student Admission

An international student is one who is not a citizen of the United States or classified by United States Immigration and Naturalization Service as a resident alien. International applicants must meet English proficiency requirements as well as academic and financial requirements before being fully admitted to the University.

All application materials and all related credentials must be received by the Graduate School no later than 90 calendar days or 60 working days before the semester that the student wishes to

enroll. All international applicants must take the following steps to be considered for admission.

1. Obtain the appropriate International Application for Admission forms from the Graduate School.

2. Complete the forms and return them along with a non-refundable application fee.

3. Submit the Financial Statement for International Students and Affidavit of Support forms (evidence of adequate financial support). These are attached to the application form.

4. Submit all records of previous schooling such as mark sheets, official transcripts, diplomas, and certificates. These records must show courses taken, grades awarded, and degrees earned. An English translation must be included.

5. Document English proficiency by submitting one of the following:

a. evidence that the applicant has obtained a current (within 180 calendar days of completing the test) TOEFL score of 520 or above with no score less than 52 on any of the three sections;

or
b. evidence that the applicant has obtained a current (within 180 calendar days of completing the test) Michigan Test of English Language score of no less than 85;

or
c. evidence of two or more years of full-time study or evidence of a completed degree program at a regionally accredited United States institution. If such work was completed more than six months before application to this university, additional evidence of English proficiency may be required.

Note that departments/divisions may have higher or additional English proficiency requirements including departmental/divisional screening or testing for English proficiency. The applicant is responsible for determining whether or not the department/division has additional language requirements. UNC does offer an English enhancement course for applicants whose English proficiency is limited. The minimum score for a conditional admission is no less than 500 on the TOEFL.

Upon application approval, international applicants will be sent a letter of admission and the I-20 form will be issued. International applicants should not plan to enter the United States without the I-20 and an admission letter from the UNC Graduate School. (The admission letter is needed for a visa.)

Deferred International Admission Status.

International applicants whose academic record is sound, but who have inadequate English Language proficiency (less than 500 on the TOEFL) can be granted Deferred Graduate Admission for a maximum of one year while they pursue study in an English language program. If an applicant is granted deferred admission pending completion of English language schooling and receipt of English proficiency scores, the I-20 will be issued by the English language school. Before Regular Admission or enrollment in graduate courses at UNC, such students must present evidence that they meet UNC's English language proficiency standards. After completion of the required English language study, the student must update their application by verifying new TOEFL scores and recertifying financial resources to the Graduate School. A student may not enroll in graduate program courses at UNC until granted conditional or regular admission.

Special Admission Policies

On-campus or Off-campus Admission

Criteria. Each department/division/school sponsoring on-campus and off-campus graduate programs will utilize the same criteria for admission to the program.

Enrollment During Unclassified Admission

Status. Students who have not applied for admission to a graduate degree program at UNC are not permitted to enroll for more than 9 hours

in a single prefix (department/program) as an unclassified student (no more than one semester of full-time enrollment).

The Graduate School places "holds" on the registration of such students, and they are not permitted to continue to enroll until an admission decision has been made. Thus, the student's application must be complete and the program faculty must recommend admission or denial of admission by the end of the first semester or 9 semester hours, whichever is later.

Admission to Next Higher Degree. A student may not pursue more than one degree simultaneously, with the following exception. Students who have applied for graduation for one degree and have been conditionally admitted to the next higher degree may request that work completed before graduation be counted toward the next higher degree. She or he must complete a Petition to Count Work on Next Higher Degree form before starting any courses that are to count on the next degree. Such dual enrollment is limited to two consecutive semesters and a student may earn no more than 12 credits of graduate work applicable to the next higher degree. Seniors registering for master's degree work according to this procedure will continue to be classified as undergraduates until they have been awarded their baccalaureate degrees.

Because all credits applicable to graduate degrees must be earned within the time limits specified for each degree program, the work toward the next higher degree must fall within the specified time limit in order to actually count in the degree program. The initial date for the next higher degree will be that of the first course credits counted toward that degree.

Deadline for Offers of Financial Support. Students are under no obligation to respond to offers of financial support before April 15. If a student accepts an offer before April 15 and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from any previously accepted offer. All written offers of scholarship, fellowship, traineeship, and/or assistantship should include a copy of this policy.

PROGRAM REQUIREMENTS

Program Advisor. Assigned by the department chair or program coordinator to each student upon being accepted into an academic program, the Program Advisor serves a critical role. The importance of the Program Advisor cannot be understated. Program advisement includes all aspects of a student's present and future academic and professional planning. It is often the Program Advisor who is able to help students conceptualize their academic program within the context of their professional goals and aspirations.

The department has the responsibility to submit an Advisor Assignment form to the Graduate School. This completed form is entered into the student database and maintained with the student file. To change an advisor assignment, a new form must be submitted to the Graduate School so that the appropriate records can be updated. Only a member of the Graduate Faculty is authorized to serve as a Program Advisor for a graduate student.

The Program Advisor is responsible for:

1. helping the student understand the expectations and requirements of her/his academic program and plan her/his program to satisfy all requirements. Any advisor-approved deviations from published program requirements or Plans of Study are communicated to the Graduate School in writing by the Program Advisor to assist the graduation check process.
2. assisting the student with answers to questions about her/his academic programs such as expectations for comprehensive examinations,

theses, or internships, as guided by the department/division and/or University and Graduate School policies and procedures.

3. professional advising and guidance including assisting the student with planning for her/his academic and professional future. This responsibility is likely to involve extensive discussions of academic or professional goals well beyond the academic program.

Competency in English Usage and Speech Skills. A student is expected to have competency in English usage and speech skills that will enable her/him to progress satisfactorily in the chosen curriculum and to perform adequately in the chosen vocation. Consequently, a student may be counseled or required by a department/division/school and/or advisor to enroll in English and/or a speech course(s).

Course Credits/Unclassified Credits. A maximum of 9 semester hours of coursework taken during unclassified status may be used toward a graduate degree program. Unclassified status is given to a student who has at least a baccalaureate degree and has not been admitted or is not seeking admission into a graduate degree program.

Enrichment Credits from Other Institutions (Colorado Reciprocal Course Agreement). At the request of the student or the department/division, the Graduate Dean may send a graduate student to another accredited institution offering graduate degrees to earn a maximum of 10 semester hours of specific course credit.

The University has a reciprocal course agreement with the University of Colorado, Colorado State University, and Colorado School of Mines. A full-time graduate student on one campus may take one approved course per term without additional tuition at one of the other institutions. Such work will count as residence credit and will appear on the UNC transcript. Students interested in this arrangement may obtain the guidelines and the application form in the Registrar's office. Forms must be completed and approved before the term that the student proposes to take the course.

Counting Work Toward Next Higher Degree. It is beneficial to complete one degree before initiating coursework toward the next higher degree. However, to count work toward the next higher degree, the student must have

1. applied for and been accepted in the next higher degree program;
2. applied for graduation in the current degree program; and
3. submitted a Petition to Count Work Toward the Next Higher Degree form to the Graduate School before starting any courses that are to count on the next higher degree.

Such dual enrollment is limited to two consecutive semesters, and the student may earn no more than 12 credits of graduate work applicable to the next higher degree.

Seniors registering for master's degree work according to this procedure will continue to be classified as undergraduates until they have been awarded their baccalaureate degrees.

Because all credits applicable to graduate degrees must be earned within the time limits specified for each degree program, the work toward the next higher degree must fall within the specified time limit in order to count the petitioned work in the degree program. The initial date for the next higher degree will be the date of the first course credits counted toward that degree.

Transfer Credit Policies

1. Grades earned in courses transferred into a graduate program from other colleges and universities are not used in the calculation of the graduate grade-point average.

2. Graduate credit earned in off-campus or extension courses at other colleges or universities is not transferable unless it is acceptable to the major department/division and to the Graduate School.

3. Transfer credit will not be accepted if the work was used to obtain a degree at any institution.

4. Transfer credit must be compatible with the student's program and must be "A" or "B" work.

5. Transfer credit cannot be used to meet any residency requirement.

6. Transfer credit cannot be used to make up "D," "F," or "U" grades received in required courses. Courses graded "S/U" are not transferable unless documentation can be obtained from the originating institution stating that the "S" grade granted is equivalent to an "A" or "B" grade.

7. Transfer courses must have been completed within five (master's), six (specialist) or eight (doctoral) calendar years of the completion of the student's current degree program.

8. Transfer courses must be numbered as graduate-level courses according to the course numbering system at the originating institution. Undergraduate-numbered courses that are optional credit for graduate or undergraduate programs are not considered to be graduate-numbered courses.

9. Transfer courses must be from accredited institutions of higher education that offer equivalent level degrees (e.g., doctoral degrees if transferring graduate credit into a doctoral program).

Master's and Specialist Degrees. Students must complete a minimum of 24 credits through the University of Northern Colorado as part of their master's degree or post-master's specialist degree. Thus, students can transfer up to 6 credits from another accredited institution into a 30 credit-hour master's or specialist degree program. If the program requirements exceed the minimum 30 credits, students may transfer additional credits as determined by the department or program faculty. Students without a master's degree must complete 48 semester credit hours at UNC of the 60 required credits for a specialist degree. Students should check department policies regarding transfer of credit.

Doctoral Degrees. Students must complete a minimum of 40 semester hours through the University of Northern Colorado of the 64 minimum required for a doctoral degree. If the program requirements exceed the 64 credit minimum, students may transfer additional credits as determined by the department or program faculty. Doctoral students without a master's degree must complete 64 of the 96 required credits at UNC for a doctoral degree.

The student's Plan of Study will indicate transfer credits to be included in the program. Students should check department policies regarding transfer of credit.

Exceeding Limits. Policy does allow programs that exceed the 30-credit minimum for a master's/specialist and 64-credit minimum for a doctoral degree to establish departmental transfer limits and guidelines that exceed current minimums. As long as the minimum number of credits through UNC are obtained, transfer-credit allowances will be determined by program faculty and can vary case-by-case. The Graduate School will not approve students for graduation with fewer than the required UNC credits.

Credits

Resident Credit Policies. Graduate credit is granted for courses taught by a faculty member who has been appointed to the Graduate Faculty or to the Graduate Lecturer Faculty only.

Credit According to Course Numbers. Courses at the University are sequentially numbered.

Courses numbered 100 to 499 are for undergraduate credit, and courses numbered 500 to 799 are for graduate credit. Graduate students may not count courses numbered 100-499 toward graduate degree programs. Courses numbered 700-799 may be taken for specialist or doctoral credit only.

Upon prior written permission of the instructor, the major advisor, and the department/division/school chairperson, an upper-division undergraduate student may take 500-level courses. Only those

undergraduate students who have been previously admitted to a master's degree program and approved to count work toward the next higher degree will be permitted to take 600-level courses.

Maximum Course Load. Course-load limitations for graduate students refer to all courses taken while enrolled as a graduate student in a graduate degree program, a non-degree certification program, or any combination thereof. The maximum load for a graduate student is 17 hours per semester during the academic year.

During the summer term, a graduate student may register for a maximum of 9 semester hours of coursework during the six-week sessions or 12 semester hours of coursework during the two six-week sessions.

Course load limitations refer to work completed in either on-campus or off-campus programs or in a combination of the two types.

Requests for exception to the course-load policy are made within the student's department/division. Forms can be obtained from department offices. The student is expected to explain the need for exception to the policy and how the overload would contribute to the quality of her/his academic program. The student must also provide evidence of noteworthy academic performance to assure continuation of quality academic work. Approval is not automatic and major consideration is given to maintaining the academic integrity of the student's program of study.

Variable Topics Courses. A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, or 622 may be counted toward a graduate degree except for 1) Master's: A maximum of three semester credits of 513 (Professional Renewal) may be counted toward the master's degree and 2) Specialist: For a baccalaureate-only student, a maximum of 12 semester hours of 508, 513 or 622, individually or in combination, will be counted toward a specialist degree.

Correspondence Courses. Courses delivered through alternative means (e.g., distance delivery, independent studies, communications technology or computer assisted delivery) must be approved by the sponsoring department or division, college dean and the Graduate School dean to be considered for graduate program credit. Courses shall have a defined relationship and applicability to degree and/or licensure programs as electives, support courses or courses that fulfill program requirements.

Credit-Hour Requirements by Degree

Master's Degree. The Graduate School requires a minimum of 30 semester hours for a master's degree. Departments/divisions may have requirements that exceed these minimum standards.

Faculty in master's programs are expected to identify deficiencies in the undergraduate coursework of students admitted to their degree program and to require students to remedy those deficiencies in the course of completing their master's degree.

Specialist Degree. A student entering a specialist degree program who possesses a master's degree must earn a minimum of 30 semester hours of graduate credit beyond the master's degree. A student entering a specialist degree program who possesses only a baccalaureate degree must earn a minimum of 60 semester hours of graduate credit beyond the baccalaureate degree. However, departments/divisions/schools may have requirements that exceed the minimum standards established by the University.

Doctoral Degree. A student entering a doctoral program who possesses a master's degree must earn a minimum of 64 semester hours of graduate credit beyond the master's degree. This includes a minimum of 48 semester hours of graduate-course work, 4 semester hours of proposal research, and 12 semester hours of dissertation credit.

A student who possesses only a baccalaureate degree must earn a minimum of 94 semester hours of graduate credit beyond the baccalaureate degree.

This includes a minimum of 78 semester hours of coursework, 4 semester hours of proposal research, and 12 semester hours of dissertation credit.

A student who possesses a master's degree but who is attempting to obtain a second master's degree plus a doctoral degree must meet the same credit hour requirements as the baccalaureate-only student.

A student who possesses a specialist degree may count a maximum of 21 semester hours of specialist work in the doctoral program with the approval of the Graduate School, the Program Advisor, and all members of the Doctoral Program Advisory Committee. The departments/divisions may have requirements that exceed the minimums established by the University.

Deviations from the Major

Change of Major. If a student is admitted to and begins work (registers for courses) in a degree program, but desires to change programs, the student must complete a Request for Change of Major form and receive appropriate departmental/division/school recommendations for admission. If the student is admitted to, but does not begin work in, a degree program (has not registered for courses), but desires to change programs, the student must request that the Graduate School cancel the original admission and send the applicant materials to a new degree program.

Double Major. Master's degree students who desire a double major are advised that only one degree will be awarded (e.g., M.A., M.S., M.M., M.P.H., M.M.E.) and only one degree will be reflected on the transcript, but both majors will be noted. The student must specify which degree is to be used. Double majors must meet all requirements and must apply for, take, and pass the comprehensive examination or approved equivalent in each major. No degree will be awarded if the student fails to successfully complete either major.

Note that it is recommended that a student interested in obtaining two master's degrees complete one degree program completely before applying to the other. Students are commonly advised that it is most often to their advantage to seek a higher degree (specialist or doctorate) upon completion of a master's degree rather than obtaining two master's degrees. The student should consult with her/his Program Advisor or the Graduate School about declaring a double major or seeking two master's degrees.

Drop of Double Major. A student with a double major may drop one of the majors before taking either comprehensive examination only if she/he has a UNC grade point average of 3.00 in the major being dropped. Once a student has taken the comprehensive examination for one of the majors, she/he cannot drop the other major.

Dual Doctoral Guidelines. A student may receive a second doctoral degree from UNC provided that the requirements for the first doctoral degree are completed before initiating the second degree program. No coursework from the first degree will be counted toward the second degree. Double majors are not permitted at the doctoral level. Emphases within a program area are considered different majors and may not be simultaneously completed.

Grading

Procedures. Grades of "A," "B," "C," "D," and "F" are used and are computed in the grade point average. Other marks used are:

"I" for Incomplete "S" for Satisfactory
 "U" for Unsatisfactory "W" for Withdrawal
 "NC" for Audit "NR" for No Report
 "UW" for Unauthorized Withdrawal
 Grades of "S," "U," "UW," "W," "NC," and "NR" are not counted in determining grade point average. Courses for which "D," "F," "U," "W," "UW," "NR," or "I" grades are awarded will not count in graduate degree programs and will not satisfy program deficiency requirements.

The work to remove an "I" must be completed and an official Grade Change form recorded in the Records office by the last day of the next semester the student attends the University. This must occur within one calendar year of the grade's assignment. If the incomplete grade is not completed within the time limitations, the grade will be recorded on the academic record as "I/F" and will be computed as an "F."

Grades can be changed, using the Special Grade Report, within the first two weeks of the following semester. Spring semester grades are due two weeks into the summer term. However, students wishing to appeal an assigned grade must follow the academic appeals procedure and must initiate the appeals process within the semester following receipt of the contested grade. (Graduate students should contact the Academic Appeals Officer of the Graduate School.)

"NR" will be recorded for "x" number of hours in a master's thesis or creative project, a specialist degree practicum, a doctoral proposal, a doctoral dissertation or other approved courses when a student has not completed the work by the end of the semester. The "NR" will be replaced by the appropriate grade when the work is completed. The instructor of record or the department chairperson must submit a special grade report form to remove an "NR" grade.

GPA Requirements. In order to remain in a graduate program, a student must maintain a cumulative grade-point average of 3.00 in graduate-level courses. If the student's cumulative GPA drops below 3.00 after at least 9 graduate-level credit hours, a warning letter will be sent to the student. A graduate student may not graduate with a cumulative GPA below 3.00. The degree program of a student who has been sent a warning letter will be terminated if the student's GPA is below 3.00 after completing an additional 9 or more graduate-level credit hours in which grades of "A," "B," "C," "D," or "F" are earned. All grades earned during the semester in which the 9th hour is earned are used in the GPA calculation.

External Degree Programs. Students admitted to external degree programs are expected to meet the same degree requirements as on-campus students. Additional policies regulating these programs can be found in the Statewide Extended Campus Policies and Procedures Manual available at the College of Continuing Education.

Program Termination. A student's degree program may be terminated for one or more of the following reasons:

1. Based on an overall evaluation of a student's progress, the major department/division recommends that the program be terminated. The department/division/school declines to issue a letter of encouragement or continuation (see section below).
2. An overall unsatisfactory evaluation is made of a specialist or doctoral student's progress.
3. The student fails to maintain the cumulative 3.0 grade point average standard.
4. The student fails the retake of the written comprehensive examination or its approved equivalent.
5. The student fails the retake of the oral comprehensive examination.
6. The student submits an unsatisfactory thesis or dissertation.
7. The time limit established for the degree program expires before the degree requirements are completed.

Re-admission after Program Termination. A student whose degree program has been terminated may be admitted to a different degree program. The following policies apply:

1. The student must apply for admission to a different degree program.
2. If admitted, the student must complete all standard requirements of the program to which he or she has been admitted.
3. A maximum of 9 semester hours from the terminated program may be counted in the new program if approved by the new Program Advisor and the Graduate School.

4. If the student's former program was terminated due to failure of the retake of the comprehensive examination or its equivalent, the student will be allowed only one opportunity to pass the comprehensive examination or approved equivalent in the new program.

Directed Study

Directed Study courses, available in most disciplines, are those for which a qualified student may receive credit for undertaking an Individualized Investigation under the direct supervision of a UNC faculty member. Courses numbered 622 are graduate level, Directed Study courses. The faculty member providing the supervision must be approved to teach graduate-level courses. However, no faculty member will be authorized to supervise a Directed Study course during a semester that he or she is not employed on the UNC campus.

Unless specifically recommended by the Program Advisor and the department/division chairperson and approved by the Graduate Dean, a Directed Study Investigation must be on a specific topic that is not duplicated by an existing course within the University curriculum. The nature of the study must involve intensive use of relevant literature, materials, or techniques, and the study report must reflect a synthesis of the information or techniques acquired.

The following policies apply to Directed Study courses:

1. No more than two Directed Study courses with a combined total of no more than 6 semester hours may be taken in a semester. Furthermore, each study is limited to no more than 4 graduate semester hours.
2. The student shall apply through the department/division/school in which the study is to be supervised.
3. Requests to engage in a Directed Study for credit must be approved by the student's Program Advisor, the faculty member supervising the study, and the chairperson of the major department/division.
4. All persons receiving credit for a 622-numbered course must submit two copies of a final report to the supervising faculty member. While the final report may be in the nature of a scholarly research paper, it also may take the form of a report or a summary of the activities undertaken. The format and writing style of the final report must be in keeping with the style manual used by the discipline. It is the student's responsibility to acquire the appropriate style manual for reference.
5. The faculty member must submit one copy of the final report to the appropriate departmental/division office with the final grade assignment.

Program Time Limits

Master's Degree. The maximum time allowed for the completion of the degree is five calendar years beginning with the first semester of enrollment after admission has been granted. However, if a student has approval to count work taken before the first enrollment after admission, he or she must complete the degree within five calendar years beginning with the earliest work counted in the program.

Specialist Degree. The maximum time allowed for completion of the degree is six calendar years beginning with the first semester of enrollment after admission has been granted. However, if a student has approval to count work taken before the first enrollment after admission, he or she must complete the degree within six calendar years beginning with the earliest work counted in the program.

Doctoral Degree. The maximum time allowed for completion of the degree is eight calendar years beginning with the student's first semester of enrollment after admission has been granted. However, if a student has approval to count work taken before first enrollment after admission, the student must complete the degree within eight calendar years beginning with the earliest work counted in the program.

If a student has completed a Specialist in Education degree at the time he or she begins a doctoral degree program and if the student is permitted to include 21 semester hours of her/his specialist degree credit in the doctoral program, the student shall have a maximum time limit of five calendar years to earn the doctoral degree.

Basic Research Requirement

Master's Degree. All students must register for SRM 600, Introduction to Graduate Research, or one of the research-oriented substitute courses approved by the Graduate Council. The Graduate School will not waive this requirement unless recommended by the Program Advisor and unless the student has received a graduate degree from an accredited college or university within the last five years. The Program Advisor must provide an explanation of the requested waiver in writing. The departmental prefix 622 shall not be used as a substitute for the research course. The research-oriented courses listed below have been approved by the Graduate Council as substitute courses:

Applied Statistics (SRM 604), Audiology (HRS 610), Biological Sciences (BIO 694), Chemistry (CHEM 600), Community Health (HRS 610), Earth Sciences (ESCI 600), Educational Psychology (SRM 670), English (ENG 600), Gerontology (HRS 610), History (HIST 600), Physical Education (PE 602), Mathematics (MATH 510), Mathematics: Teaching (MED 600), Music (MUS 600), Music Education (MUS 610), Nursing (NURS 505), Psychology (SRM 603), Reading (EDRD 645), Recreation (HRS 610), Speech Communication (SPCO 600), Speech Pathology (HRS 610), Visual Arts (ART 600).

Specialist and Doctoral Degrees. All students must register for SRM 700, Advanced Research Methods, or one of the research-oriented substitute courses approved by the Graduate Council. This course should be taken during the first semester of enrollment. The Graduate School will not waive this requirement unless recommended by the Program Advisor and unless the student has received a degree at the same level from a college or university within the last five years. The Program Advisor must request in writing that this requirement be waived. A course that has been previously completed, and is judged to be the equivalent of the Advanced Research course, may be substituted for this requirement. Documentation for the substitute course must be provided to the Graduate Dean for approval. The departmental prefix 622 shall not be used as a substitute for the research course.

The research-oriented course, PPSY 781, has been approved by the Graduate Council as a substitute course for Advanced Research Methods for the School Psychology Specialist degree.

The research-oriented courses listed below have been approved by the Graduate Council as substitute courses for Advanced Research Methods for doctoral degrees:

Applied Statistics (SRM 614), Biological Sciences (BIO 694), Chemistry (SCED 694), Elementary Education, Elementary Education: Early Childhood Education and Reading (SRM 602 and SRM 603), Physical Education (PE 703), Kinesiology (KINE 625), Mathematics Education (MED 701), Music and Music Education (MUS 700).

Doctoral Research Tools. All Ph.D. students must demonstrate competency in two acceptable research tools. The level and assessment of competency is established by each department/division and must be approved by the Dean of the Graduate School.

Acceptable research tools are foreign languages, applied statistics, mathematical statistics, and computer languages/applications. With the approval of the major department/division/school and the Dean of the Graduate School, however, doctoral students may use a collateral field of study as a substitute for one of the research tools.

Student Research Issues

Internal Review Board (IRB). Before any research involving human subjects can be conducted under the auspices of the University, an Internal Review Board (IRB) review is required. The main considerations and responsibilities of the IRB are to assure that ethical standards and the protection of human rights are maintained in any research conducted while at UNC. Researchers are advised to obtain and submit an IRB packet early in their research process to allow time for a thorough review. Data from human subjects are not to be collected until written approval is received from the IRB.

Applications for research approval are available in the Thesis and Dissertation Manual (1995 edition), which can be purchased at the UNC Bookstore. Faculty may request an IRB packet from the Graduate School.

Student Research Liability. The state of Colorado's Risk Management Division, responsible for UNC's liability insurance, has concluded that student researchers are not protected by the State of Colorado against claims unless they are student employees, interns, or authorized volunteers assigned to a research project (most student researchers would not be). This means that most graduate students working on their master's theses or doctoral dissertations are not protected by the State of Colorado against claims resulting from their research.

This decision has serious implications for student researchers who are working with human subjects. Any student researcher who is placing subjects at some level of risk should be concerned. For example, student researchers may be engaged in a variety of activities that could potentially harm their subjects (e.g., they draw blood, conduct therapy sessions, evaluate physical conditioning). Regardless of how responsible researchers may be, accidents can happen.

To protect against liability claims, all research involving subject consent requires a statement informing potential subjects that their participation is not covered by University liability insurance. The subject consent form must include the following statement: "If injuries occur during the course of research, subjects are advised that the University of Northern Colorado is a publicly-funded institution of higher education and as such, liability may be limited under and governed by the Colorado Governmental Immunity Act."

Although the researcher is ultimately responsible for the health and safety of research subjects, low-risk research, as defined by Health and Human Services (HHS) Guidelines and described in the IRB instruction packet, may not be recommended for special liability insurance coverage. For moderate- to high-risk procedures, the IRB Committee will strongly recommend that the student purchase liability insurance either through her/his professional association or an alternative source.

Plans of Study

Master's Degree. The description in this Bulletin will serve as the Plan of Study for master's programs. Written requests for changes or substitutions in the Plan of Study must be signed by the Program Advisor and submitted to the Graduate School. Students should take the responsibility to make sure any deviations from the Bulletin are documented in their Graduate School file. Departments/divisions/schools are also encouraged to identify any deficiency courses a student must complete at the time of screening for admission.

Specialist Degree. A Supervising Committee consisting of two persons recommended by the department/division and approved by the Dean of the Graduate School shall supervise a student's specialist degree program. In conjunction with the Supervising Committee, each specialist degree student must prepare a Plan of Study that clearly specifies core requirements, as well as elective, UNC, transfer and double-numbered coursework.

The plan must be formalized on a Plan of Study form and the completed form, including the signatures of the Supervising Committee members, must be filed with the Graduate School by the end of the student's first semester of enrollment after admission.

Upon receipt of a properly signed Plan of Study form, the Dean of the Graduate School or her/his designee shall review the plan. If approved, the Plan of Study form will be filed in the student's folder. If disapproved, the form will be returned to the student for correction and resubmission.

Because the Plan of Study will be the basis for the graduation check, any deviation from it must be approved by the Supervising Committee and the Dean of the Graduate School or her/his designee.

Doctoral Degree. A Program Advisory Committee consisting of at least three persons appointed by the major department/division and, if applicable, by any supporting area department/division shall supervise the planning of a student's doctoral degree program. In conjunction with this Committee, each doctoral student must prepare a long-range Plan of Study that clearly specifies core requirements, as well as elective, UNC, transfer and double-numbered coursework; and research tools (if applicable). The plan must be formalized on a Plan of Study form and the completed form, including the signatures of the Program Advisory Committee members, must be filed with the Graduate School by the end of the student's first semester of enrollment after admission.

Upon receipt of a properly signed Plan of Study form, the Dean of the Graduate School or her/his designee shall review the plan. If approved, the Plan of Study form will be filed in the student's folder. If disapproved, it will be returned to the student for correction and resubmission.

Because the Plan of Study will be the basis for the graduation check, any deviation from it must be approved by the Program Advisory Committee and the Dean of the Graduate School or her/his designee.

Interdisciplinary. See section on Admission Requirements.

Program Continuation

Letters of Encouragement. Departments (divisions or schools as appropriate) are specifically directed to evaluate each specialist and each doctoral student when the student has completed 9 semester hours in the degree program. The evaluation will be based on multiple criteria established by the department/division. Students may not assume that each criterion carries equal weight. Indeed, one criterion may outweigh all others. Based on this evaluation, the Program Advisor will notify the student and the Graduate School in writing that the student is a) encouraged to continue in the program, b) discouraged from continuing in the program, or c) placed on review for one semester. Although the semester after the notification that a student is to be placed on review is typically the review semester, the letter placing the student on review should stipulate the semester targeted as the review period. When a doctoral student has completed 18 semester hours in the degree program, the student's department/division will submit a written recommendation to the Graduate School that the student's program be continued or terminated. The Graduate School will notify the student in writing of that recommendation.

Committees

Master's Thesis Committee. Whether the master's thesis is to be completed as a program requirement or as a project in lieu of the written comprehensive examinations, a Thesis Committee of at least two faculty members is required. If the thesis is in lieu of the written comprehensive examinations, the Permit to Take Comprehensive Examinations form is to be used and at least two signatures must be obtained to indicate the successful completion of the thesis.

If the master's thesis is required in addition to the comprehensive examinations, the student must submit the thesis signed by two faculty members to the Graduate School upon completion. The Graduate Dean will be the final approval signature on the thesis.

Specialist Supervising Committee. A two-person Specialist Supervising Committee, recommended by the department/division and approved by the Dean of the Graduate School, will supervise the specialist degree program. The Committee will assist in preparing a Plan of Study, oversee comprehensive examinations where appropriate, and direct the practicum.

Doctoral Committees. Besides the doctoral Program Advisor appointed by the Department/Division, the student will have a Doctoral Committee. Some programs will appoint the Doctoral Committee early in the student's program so that all Committee members will be involved in developing the Plan of Study with the student. The Committee will include at least three members of the Graduate Faculty who have been recommended by the Program Advisor, approved by the major department/division chairperson, and appointed by the Dean of the Graduate School. The chair of the Research Committee (Research Advisor) must currently hold Doctoral Research endorsement. In addition, the Dean of the Graduate School or his/her designee will appoint a faculty representative from another department. The student and/or Program Advisor may nominate a faculty representative from outside the program discipline by providing the rationale for appointment of this individual and the expertise this person will bring to the Committee. The faculty representative must be present at the student's doctoral oral examination and dissertation defense. No faculty member will be appointed to a doctoral Committee without his/her consent. University employees who are not members of the Graduate Faculty shall not be appointed as members of Doctoral Committees.

The student, advisor, or a Committee member may request a change in Committee membership by presenting a request to the major department/division. Except in the case of the faculty representative, the department/division will rule on the request. Appointment of a replacement member will be subject to the approval of the Dean of the Graduate School.

If a Committee member other than the faculty representative is absent during the semester that an oral examination or defense is scheduled, the major department/division will appoint a replacement, subject to approval by the Dean of the Graduate School. If the faculty representative is absent during the semester that an oral examination or defense is scheduled, the advisor shall notify the Graduate School at least three weeks (21 calendar days) before the exam or defense. The Graduate School will select an appropriate replacement for the faculty representative.

A Doctoral Committee must be appointed before the student takes the written comprehensive examination. The Program Advisor will serve as the chairperson. The Committee will be made up of at least two departmental representatives (including the chair), a representative from a supporting area if applicable or a third department/program representative, and a faculty representative nominated by the chair and assigned by the Graduate Dean or her/his designated representative. The Doctoral Committee shall be appointed no later than the end of the semester prior to the scheduled oral examination.

Interdisciplinary. See section on Admission Requirements.

Change in Committee Membership. Unless the student or the Committee chairperson otherwise inform the Graduate School or the Graduate School has informed the student of the need for a change, the Doctoral Committee membership will remain the same through the oral comprehensive examination and dissertation research stages of the program. The Graduate

School will confirm that the Committee membership is appropriate as a Doctoral Research Committee upon receipt of the results of the oral examination. To qualify to supervise a dissertation, a Doctoral Committee must have:

- a chair who is a Doctoral Research-endorsed member of the Graduate Faculty or is a Graduate Faculty member who is co-chairing with a Doctoral Research-endorsed member of the Graduate Faculty.

- at least two departmental Graduate Faculty representatives (including the chair) and a representative from a supporting area if applicable or a third departmental/program representative.

- a faculty representative nominated by the advisor on the Doctoral Committee form. The faculty representative is considered a full voting member of the student's with all the rights and responsibilities of any other member.

Recommendations for faculty representative should be based upon the methodological, theoretical, or content expertise that the faculty member can bring to the Committee. The recommended faculty member must hold Graduate Faculty status and should be in a tenure-track position in a department or division/program unit different from that of the student's program. The faculty representative is expected to contribute her/his expertise from the perspective of a disciplinary alternative. The concerns and recommendations of all Committee members, including the faculty representative, are crucial to the dissertation approval process. The final selection of the faculty representative is the responsibility of the Graduate Dean.

The student and all members of the Research Committee will receive confirmation of the approved Committee assignments.

Faculty Committee Load Policy. An "active" student is defined as one who is currently enrolled or is paying a continuous registration fee. Determination of the Doctoral Committee load is based on the policy that an individual may serve on 10 active Doctoral Research Committees at any one time and may serve as the dissertation director or Research Advisor for no more than 5 of these 10 Committees. An individual department/division may elect to impose more stringent limitations on service of its faculty.

Exceptions to the Committee maximums would be permitted only if meeting the following conditions:

1. The faculty member involved agrees that her/his load, current or projected, would allow adequate time to take on an additional student without adversely affecting the responsibility of the department/division to other students and to its own programs;

2. The department/division chairperson approves the additional student. Approval would indicate that the chairperson had reviewed the current load of the faculty member and agrees the additional load will not adversely affect the responsibility of the department/division to other students and to its own programs;

3. The Graduate Dean has been informed and has approved.

Specialist Degree Practicum

Under the direction of a Supervising Committee, each Specialist candidate is required to complete at least 5 semester hours of the Specialist Degree Practicum (DS or Department Prefix 701). School Psychology students are authorized by the Graduate Council to take 12 semester hours of PPSY 789, Internship for School Psychology, as a substitute for the practicum requirement. If the members of the Practicum Supervising Committee are not the same as the members of the Specialist Supervising Committee, the members of the Practicum Supervising Committee must be approved by the Graduate School before the start of the practicum.

Each student shall present a practicum proposal to her/his Supervising Committee for approval. No later than the last day of the semester preceding the practicum semester, the student must file the approved proposal with the Graduate School along

with a signed, Non-plagiarism Affirmation form. In addition, the student must furnish copies of the approved proposal to her/his Program Advisor and Supervising Committee members.

Upon satisfactory completion of the practicum, the student must file an original and three copies of a written practicum report with the Graduate School. A signed, Non-plagiarism Affirmation form must accompany the report.

Written Comprehensive Examinations

Master's Degree

Each master's degree student must pass a written comprehensive examination or otherwise show competency in the discipline by successfully completing a departmental/division specified equivalent that has been approved by the Graduate Council (thesis or project in lieu of comprehensive examinations). Defense of a project or thesis is equivalent to administering the comprehensive examination. The major department/division is responsible for scheduling the date, time, and place of the examination. Each student should check the departmental or divisional requirements at the beginning of her/his program. This examination or its approved equivalent may not be taken until the student has a) been granted regular admission to the program, b) completed his or her departmentally-specified course requirements, c) maintained a GPA of at least 3.0 in her/his program, and d) obtained approval from the Program Advisor and Graduate School.

Once the comprehensive examination session begins, it is considered a take of the examination. Students leaving the examination session before it is completed and not returning will be determined as having taken the examination and will be evaluated accordingly.

On or before the published deadline, the Program Advisor must return the signed results form to the Graduate School indicating that the student passed or failed. If applicable, all Committee members (minimum of two) evaluating an approved equivalent of written comprehensives or thesis must sign the report form.

A second permit is required for a retake, but it may not be scheduled during the same semester that the original examination was completed. If a student fails a retake of the examination or its equivalent, her/his degree program will be terminated. The student will have to fill out a new Permit each semester that he or she plans to take comprehensive exams.

Project Requirements. All academic units that desire the alternative of requiring a project in lieu of the comprehensive examination will clearly define what is meant by a project and submit guidelines regarding the specific method(s) of evaluation to the Graduate Council. In addition, a copy of the definition and evaluation guidelines will be distributed to students before their enrollment in a master's project.

Filing of Thesis or Project. One original and three copies of the thesis plus an additional copy of the abstract (150 words) must be submitted to the Graduate School along with a Non-plagiarism Affirmation form. The thesis must be signed by a minimum of two thesis Committee members. If a project is to be copyrighted, University Microfilms requires an abstract of the project. These items must be submitted to the Graduate School at least 28 calendar days before the student's anticipated graduation date.

Upon filing a thesis, the Graduate School will require each student to complete specific forms related to the thesis and graduation and to pay the current fees for binding, mailing, publishing, and microfilming, if applicable.

All four copies of the thesis will be bound. After binding, the original and one copy will be filed in the University Library, one copy will be forwarded to the student's Research Advisor, and one copy will be sent to the student.

Specialist Degree

Each specialist student must pass a written comprehensive examination in the area of specialization and pass any other examination(s) the Supervising Committee may require. The major department/division is responsible for scheduling the date, time, and place of the examination(s). Each student must check the departmental/divisional requirements at the beginning of her/his program. The written comprehensive examination may not be taken until the student has:

1. been granted regular admission to the degree program,
2. filed an approved Plan of Study,
3. completed at least 20 semester hours (50 semester hours if baccalaureate-only student) of work applicable toward the degree, not including the practicum,
4. maintained a grade average of at least 3.00 in her/his graduate degree program,
5. received a letter of continuance from the department/division and the Graduate School, and
6. obtained approval from the supervising Committee.

Doctoral Degree

Each doctoral student must pass a written comprehensive examination that is designed, administered, and evaluated by the Graduate Faculty of the major department/division and by other qualified individuals as specified by the Program Advisor. This examination may not be taken until the student has:

1. been granted regular admission to the degree program,
2. filed an approved Plan of Study,
3. completed at least 36 semester hours (60 semester hours if baccalaureate-only student) of work applicable toward the degree and that at least 24 semester hours have been completed on campus,
4. maintained a grade average of at least 3.00 in her/his graduate degree program,
5. received two encouragement letters from the department/division and one from the Graduate School after 18 semester hours,
6. had an Oral Comprehensive Examination Committee appointed, and
7. obtained approval from the Program Advisor.

Files of Written Comprehensive Exams. Written comprehensive examinations are maintained in the departmental office for a period of 12 calendar months. These examinations are to be confidential and only available to department/division faculty to address potential appeals and/or questions of administration and grading procedures. Although the department/division shall refuse permission to any student to examine past comprehensive examinations, it is not the intent of this policy to prevent any department/division from collecting, maintaining, and/or disbursing past comprehensive examination questions used by the department/division.

Doctoral Oral Comprehensive Examination

After passing the written comprehensive examination, each doctoral student must pass an oral comprehensive examination. The Program Advisor, who will serve as chairperson of the Oral Comprehensive Examination Committee, should direct the student to arrange the date, time, and place of the oral examination. After all arrangements have been made, the Program Advisor will notify the Graduate School by forwarding a completed Request to Schedule Doctoral Examinations form no later than 14 calendar days before the exam date. Requests submitted with greater advance notice are encouraged and appreciated. Permits for the oral comprehensive examination will not be released and the oral examination will not be authorized until the written examination report is filed with the Graduate School indicating that the student passed the written examination.

The Graduate School will approve and publicize the examination date, time, and place in UNC Report or in a bulletin published by the Graduate School. All members of the faculty are invited to attend and may ask questions of the student after the Committee members finish their questioning. Other graduate students also may attend with permission from the chairperson of the Committee. The student's performance on the examination will be evaluated as a) pass, b) will pass if meets stated conditions, c) unsatisfactory, retake permitted, d) fail, retake not permitted, program terminated. At least three-fourths of the Committee members must agree on the final evaluation.

If the student passes the examination, the Program Advisor must obtain the signatures of at least three-fourths of the Committee members on the Report of the Oral Comprehensive Examination form and return the form to the Graduate School.

If the student is evaluated "will pass if meets stated conditions," the report stating the conditions must be signed and returned to the Graduate School. The student must subsequently meet the stated conditions. No student will be admitted to candidacy until at least three-fourths of the Committee affirm that the conditions have been met.

If the student's performance is unsatisfactory, the report must be signed and returned to the Graduate School. The student may retake the oral examination during a subsequent semester. At this point, the membership of the student's Committee may not be altered without approval by the Graduate School. Failure to pass the oral retest or failure to meet conditions specified after an oral retest will terminate the student's degree program. If the student failed the examination with no retake permitted, the report must be signed and returned to the Graduate School. The Graduate School will terminate the degree program, and the student will not be permitted to do further work or take further examinations in that degree program.

Doctoral Dissertations

A dissertation pertaining to a significant topic in the candidate's major subject field is required for each doctoral program. The dissertation proposal is 4 semester hours. Minimum credit for the doctoral dissertation is 12 semester hours.

Registration for 4 semester hours of proposal research for the dissertation shall be included in the requirements for admission to candidacy. These hours shall be recorded on the transcript as "NR" (no report) until the end of the semester in which the student has been admitted to candidacy. Upon admission to candidacy, the "NR" will be replaced by the appropriate grade. No doctoral student may register for dissertation hours until he or she has been admitted to candidacy for a doctoral degree.

Admission to Doctoral Candidacy. Doctoral candidacy is awarded to doctoral students who have demonstrated their preparedness to engage in dissertation research. There are a series of accomplishments and program steps that need to be completed for the student to be nominated for candidacy. Upon satisfying these criteria, the student's name will be submitted to the Graduate Council for the official decision.

No student is allowed to register for departmental prefix 799 until he or she is admitted to candidacy, and no student will be graduated at the end of the semester that he or she is admitted to candidacy.

To be eligible for admission to candidacy for a doctoral degree, each student must have:

1. completed Advanced Research Methods or an approved equivalent;
2. earned at least 39 semester hours of credit applicable to the doctoral degree or 69 semester hours of credit applicable to the doctoral degree if the student has only the baccalaureate degree;
3. a cumulative grade average equal to or greater than 3.00 in the graduate degree program;

4. passed the written and oral comprehensive examinations;

5. filed with the Graduate School an approved dissertation proposal containing the signatures of all Committee members;

6. registered for 4 semester hours of departmental prefix 797;

7. met the research tools requirement, if applicable. If the student is substituting a collateral field for a research tool, the student may be admitted to candidacy before completing the requirements in the collateral field.

Doctoral Continuous Registration. Once a doctoral student has been admitted to candidacy, he or she is expected to be continuously enrolled each semester (including the summer term) until all degree requirements are completed or until the degree program is terminated. The requirement may be met by enrolling in one or more hours of coursework or by paying a doctoral service fee at the Accounting office when billed.

Defense of Proposal. The student will complete and submit a Research Committee Request form to the Graduate School upon passing the oral comprehensive examination if the composition of the Doctoral Committee changes.

The student will register for dissertation proposal credits (797). A grade of "NR" will be reported for any semester in which the student has registered for proposal hours, but not completed and successfully defended the proposal.

The student will prepare the dissertation proposal in collaboration with the Research Advisor. Other Committee members are to be consulted when appropriate, but the major interaction and editorial work should be with the Research Advisor. Students should avoid sending portions of the dissertation proposal to Committee members for their review and comment. Unless otherwise agreed upon by all Committee members, only completed copies of the proposal or dissertation are to be distributed and reviewed by the Committee.

When the Research Advisor believes the dissertation proposal is ready for defense, the proposal is to be presented to the entire Committee. Students should allow at least three weeks before the scheduled hearing for Committee members to review and critique the proposal. The student and Research Advisor are to arrange for a room and make sure all Committee members are available and aware of the time and place. The faculty representative must be present at both the proposal hearing and the final dissertation defense.

The student will revise the proposal in consultation with the Research Advisor, according to Committee requirements. Unless otherwise agreed, it is the student's responsibility to make note of the Committee member's requests for changes during the proposal defense. It is recommended that the student summarize the changes that have been incorporated into the revised proposal to assist Committee members in identifying and locating the changes.

The revised proposal will be circulated with a signature page to the Committee members for them to review and to sign if they approve of the revisions. A second Committee meeting is optional but could be required by the Committee due to the extensive nature of the expected changes or to expedite the approval process. If all Committee members sign the proposal, it will be considered approved by the Graduate School.

The student will submit one copy of the approved proposal to the Graduate School. The Graduate School will consider the proposal to be accepted, the student will be recommended to the Graduate Council for advancement to candidacy (if all other requirements are completed) and, upon approval from the appropriate Institutional Review Board (IRB for human subject research and IACU Committee for animal research), the student may begin the data collection portion of the study.

The student will complete the project and write the dissertation in close collaboration with the Research Advisor.

The student will submit to the Graduate School a confirmed date, time and place for the dissertation defense. The Graduate School will send the Research Advisor a copy of the confirmed schedule and a Defense Evaluation form. The scheduled defense date must be at least 14 calendar days after the request to allow for publicizing the defense to the academic community. Requests for defense submitted more than two weeks in advance are welcomed and appreciated.

The defense must occur at least one week before the final dissertation submission date or the student will not be allowed to graduate until the following semester.

All members of the Graduate Faculty may attend the defense and may ask questions of the student after the Committee members finish their questioning. Other graduate students may attend with permission from the Research Advisor.

Defense of Dissertation. The Research Advisor should discuss the nature and purpose of the dissertation defense with the candidate. Generally, the candidate is instructed to prepare a brief description of the entire study from the purpose to the results and discussion. The Committee is free to ask any questions pertaining to the dissertation. The candidate is expected to understand all aspects of the study including the data analyses even if he or she contracted the services of a statistical consultant to complete the analyses. The Committee will expect the candidate to demonstrate that he or she is an expert on the topic and thesis of the dissertation. It should be recommended that the candidate bring copies of the signature pages for the dissertation. If the Committee approves the defense and dissertation with no corrections, they can then sign the evaluation form and the signature pages.

The Dissertation Research Committee will evaluate the candidate's performance at the defense, as well as the written dissertation, as a pass, pass with conditions, or failure on the Report of Defense of Dissertation.

If the candidate passes the defense, the Research Advisor will obtain the signatures of the Research Committee members on the Report of Defense of Dissertation form and submit the form to the Graduate School. The candidate shall proceed to make any corrections required by the Research Committee and submit the corrected dissertation to the Research Committee members for their signatures.

If the Research Committee requires the candidate to "meet stated conditions," the Research Advisor shall list the conditions on the Report of Defense of Dissertation form, obtain the signatures of the Research Committee members on the form, and submit the form to the Graduate School. The list of conditions must include a statement regarding the number of additional defense meetings authorized and the amount of additional time allowed by the Research Committee.

If the candidate subsequently satisfies the stated conditions, the Research Advisor shall obtain the original Report of Defense of Dissertation form from the Graduate School, shall obtain the signatures of the Research Committee members on SECTION II of the form indicating approval, and resubmit the form to the Graduate School. The candidate shall proceed to make any corrections required by the Research Committee and submit the corrected dissertation to the Committee members for their signatures.

If the candidate does not meet the stated conditions, the Research Advisor shall obtain the original Report of Defense of Dissertation form from the Graduate School, shall obtain the signatures of the Research Committee members on SECTION II of the form indicating that they do not approve, and resubmit the form to the Graduate School. The Graduate School shall then notify the candidate that the degree program is terminated.

If a candidate fails the defense, the Research Advisor shall obtain the signatures of the Research Committee members on the Report of Defense of Dissertation form and submit the form to the

Graduate School. The Graduate School shall then notify the candidate that the degree program is terminated.

Objection to Dissertation. If a dissertation is filed with all but one of the signatures of the Research Committee members, the Dean of the Graduate School or designee will ask the non-signing member if he or she wishes to enter a formal objection(s). If a formal objection is filed, the Dean of the Graduate School will appoint a Review Committee to assess the specific objection(s) of the dissenting Dissertation Committee member. If the Review Committee rules that the objection(s) does not justify the rejection of the study, the chairperson of the Review Committee will sign the dissertation in place of the dissenting faculty member. If the Review Committee rules that the objection(s) is valid, the candidate must take appropriate steps to modify the dissertation in order to gain the approval of the original Dissertation Committee. The official document explaining the formal objection procedure is available in the Graduate School.

Filing of Dissertation. Upon completing any necessary revisions and obtaining successful approval of the dissertation by the candidate's Research Committee, one copy of the final dissertation is to be submitted to the Graduate School. The Graduate School will conduct an editorial review to check for grammar and spelling. The candidate will then be asked to make revisions or submit the additional three copies of the final dissertation for the Dean of the Graduate School to sign. The dissertation is not approved until signed by the Graduate Dean.

The original and each copy must contain an originally signed approval sheet and a 350 word abstract. (University Microfilms will not publish an abstract that exceeds the 350 word limitation.) Furthermore, the candidate must submit one extra copy of the abstract to the Graduate School for publication purposes.

If the dissertation is not filed with the Graduate School at least one week before the final dissertation submission date, the candidate may not graduate until the following semester.

Upon filing the dissertation, the Graduate School will require each doctoral candidate to complete specific forms related to the dissertation and graduation and to pay the current fees for binding, mailing, microfilming, and publishing the dissertation. All four copies of the dissertation will be bound. The dissertation will be microfilmed and the abstract will be published in Dissertation Abstracts.

After binding, the original and one copy will be filed in the University Library, one copy will be forwarded to the candidate's Research Advisor, and one copy will be sent to the candidate.

Plagiarism. The student shall sign the Non-plagiarism Affirmation when the proposal is filed and shall be told that the Affirmation must be signed and filed in the Graduate School office with the corrected dissertation following the defense.

The following is the approved definition of plagiarism in UNC Codification (2.8.6.2, Ch 2):

"Plagiarism is the act of appropriating the written, artistic, or musical composition of another, or portions thereof; or the ideas, language, or symbols of same and passing them off as the product of one's own mind. Plagiarism includes not only the exact duplication of another's work but also the lifting of a substantial or essential portion thereof.

Regarding written work in particular, direct quotations, statements that are a result of paraphrasing or summarizing the work of another, and other information that is not considered common knowledge must be cited or acknowledged, usually in the form of a footnote. Quotation marks or a proper form of indentation shall be used to indicate all direct quotes."

As long as a student adequately acknowledges her/his sources and as long as there is no reason to believe that the student has attempted to pose as the originator, the student will not be charged with plagiarism even though the form of the acknowledgment may be unacceptable. However, students should be aware that most professors require certain forms of acknowledgment and some may evaluate a project on the basis of form.

Doctoral Residency

Although departments/ divisions may have more stringent residency requirements, the Graduate School requires each student to complete at least two academic terms of full-time study in residence after the student has been admitted to the doctoral degree program. A term in residence is defined as a term that a student completes 9 or more credit hours of on-campus coursework applicable to the doctoral degree. Courses numbered 601, 622, 701, and 797 will not be counted in the 9 or more credit hours unless a student also completes at least 6 other credit hours of on-campus coursework applicable to the doctoral degree. Departmental prefix 799 may not be used under any circumstances to meet the residency requirement.

If a University of Northern Colorado or Aims Community College employee cannot meet the above prescribed residency requirement due to employment restrictions, she/he may satisfy the requirement by completing 20 or more credit hours of on-campus work applicable to the degree during consecutive, academic-year terms. Such a student must receive written permission from her/his immediate supervisor and a recommendation from her/his major department/division to fulfill the residency requirements in this manner. The supervisor's permission and the department/division recommendation must be filed with the Graduate School.

Graduation

Graduation Check. All master's and specialist students must apply for graduation by the end of the semester before proposed graduation. Graduation requirements are checked in accordance with one specific UNC Bulletin. The Bulletin used to meet graduation requirements is normally the one published for the academic year during which the student first enrolls after admission to the University.

The student must specify the Bulletin under which he or she wishes to be evaluated and must meet all requirements in that Bulletin. The student may select any subsequent Bulletin up to and including the current one provided the student was in attendance at the University during that academic year. However, a student may not choose to meet some requirements in one Bulletin and other requirements in another Bulletin.

The University reserves the right to modify or change Bulletin provisions from time to time in order to fulfill the University role and mission or to accommodate circumstances beyond its control. Any such changes or modifications may be implemented as applicable to all or some students without prior notice, without obligation, and unless specified otherwise, are effective when made. The University reserves the right to terminate or modify program requirements, content, and the sequence of program offerings from time to time for educational or financial reasons that it deems sufficient to warrant such actions.

Graduation Procedures. Formal application for graduation must be filed with the Graduate School by the end of the semester before proposed graduation. Applications filed after this date will be considered late applications. Late applications will be accepted no later than 4 pm of the Friday of the second week of the semester that the student expects to graduate. A late fee will be charged for late applications. The student has the responsibility for determining that the application has been filed with the Graduate School.

Students are expected to review their academic records with their Program Advisor and obtain the Program Advisor's approval signature signifying completion of program requirements. The Graduate School will not accept a graduation application that is not signed by the student and Program Advisor.

If the student does not complete all requirements for the degree and does not graduate at the end of the proposed semester, the application will be placed in the deferred file. The student must give written notice to the Graduate School when he or she wishes to appear again on the tentative list of graduates. All graduating students are encouraged to attend graduation. Those students participating in the graduation ceremony are required to wear appropriate academic regalia.

Diplomas are not issued at the graduation ceremony. They will be mailed to addresses supplied by the students to the Graduate School. Failure to supply the mailing address could result in a delay in receipt. No diploma will be issued until all requirements for graduation have been met.

Doctoral Hooding. The candidate's Research Advisor shall hood the candidate at the graduation ceremony.

Letter of Completion. Usually, an official transcript is proof of completion of the degree. If proof of degree with degree indicated is needed before official transcripts are available, the graduate may contact the Graduate School for a letter of completion, which can only be issued after all degree requirements have been officially verified as completed including posting of grades for the current semester by the Registrar.

The Graduate Dean's Citation. The Graduate Dean's Citation is awarded each semester to students nominated by their division/ department in recognition of superior achievement in their graduate studies. Each division/department may recommend graduate students completing their programs during a specific term (summer, fall or spring) provided that they meet these minimum criteria: (a) a cumulative graduate grade point average of at least 3.75 and (b) documented evidence of superior accomplishment while a graduate student at UNC.

The nomination should be supported by (a) written recommendations from graduate faculty of the academic program outlining the student's accomplishments, (b) outstanding dissertation/ thesis/creative project nominated by the academic unit and/or (c) special recognition by an agency or organization (outside of UNC) for scholarly accomplishment, academic achievement, or contributions to society. Awardees are selected by the Graduate Dean.

Programs of Study

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Location: Michener L54 **Telephone:** 970-351-2707

Interim Dean: John K. Gapter **Associate Dean:** Maria E. Lopez

Interim Associate Dean: Richard G. Trahan

The College of Arts and Sciences provides the foundation for a liberal arts education through studies intended to impart general knowledge and to develop the intellectual capacities of reason and judgment. The broad areas included are the humanities, natural sciences and social sciences.

General Education courses, predominantly offered by disciplines in this college, give UNC graduates a background in the liberal arts and sciences to better prepare them for living in our complex society.

The College of Arts and Sciences at UNC is committed to serious scholarly work, superior instruction and research. The knowledge, understanding and perceptions that lead to critical and independent thought are fostered by the faculty and administration of the college, and these qualities serve to enrich the lives and careers of its graduates.

Arts and sciences majors are broadly educated and well prepared to enter a wide variety of occupations. Many areas prepare students specifically for positions in industry and government. Pre-professional studies in law, medicine, dentistry, engineering and education are all based on a liberal arts foundation and many businesses today prefer their employees to have a liberal arts background to support on-the-job training. As Americans change jobs more and more frequently, a broad liberal arts background makes these changes possible and successful.

The college maintains a number of specialized facilities used by many departments. They include: the foreign language lab, a television studio, the English writing lab, the animal care facility, the greenhouse, computer facilities in Ross and Candelaria Halls and Michener Library, a computerized news-writing lab, the math lab and the psychology lab.

English Essay Exam

Every student must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged

or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and may be retaken any number of times. There is a fee to retake the examination. Additional information can be obtained from the Writing Center, Michener L173, phone 970-351-2056.

Africana Studies Department

Location: Michener L137 **Telephone:** 970-351-2685

Chair: Vacant

Professor: Hermon George, Jr., Ph.D.

Associate Professor: Anthonia C. Kalu, Ph.D.

Assistant Professors: Osita G. Afoaku, Ph.D.; George H. Junne, Jr., Ph.D.

The Department of Africana Studies offers an interdisciplinary curriculum that promotes the study of the history, culture, philosophy, economy and political experience of people of African descent, especially those living in the United States, on the African continent itself, in Latin America and in the Caribbean. The curriculum is based on the assumption that there exists a substantive, intrinsically valuable body of knowledge that expresses the Africana experience and looks beyond a deficient past into a critical evaluation of a history of pre-slavery freedom and a future of unlimited possibilities.

As an academic discipline, the Black Studies curriculum is divided into two foci: social and behavioral studies and cultural studies. Coursework in the social and behavioral studies focus includes such topics as history of African descended people, nationalism, cultural heritage, the effects of racism and the social scientific study of African American communities. The cultural studies focus emphasizes literature by authors of African descent, music, religion, identity and the family.

Anthropology Department

Location: Candelaria Hall 24 **Telephone:** 970-351-2021

Chair: James Wanner

Professors: Michael J. Higgins, Ph.D.; James Wanner, Ph.D.

Associate Professor: Sally McBeth, Ph.D.

Assistant Professor: Robert H. Brunswig, Jr., Ph.D.

Anthropology is the study of the nature of humans and of human relations, both within one's own society and in other societies. It helps one to think internationally and interculturally. It teaches one to evaluate current developments and trends in a global perspective.

The discipline of anthropology is subdivided into cultural/social anthropology, archaeology, physical anthropology and anthropological linguistics. Cultural/social anthropology, archaeology and physical anthropology are stressed at UNC.

Laboratories in physical anthropology, archaeology, ethnology and media are utilized in the instructional program. Ethnology and archaeology courses include all areas of the world, but focus on peoples of the New World. Social processes such as culture change, acquiring culture, ethnicity, urban anthropology, the biological basis for culture and society and current problems are stressed.

Biological Sciences Department

Location: Ross Hall 2280 **Telephone:** 970-351-2921

Chair: Warren R. Buss

Professors: Warren R. Buss, Ph.D.; James P. Fitzgerald, Ph.D.; John K. Gapter, Ph.D.; William E. Harmon, Ph.D.; Margaret E. Heimbrook, Ph.D.; Charles Olmsted, III, Ph.D.

Associate Professors: Jennifer Clarke, Ph.D.; April Gardner, Ph.D.; John Moore, Ph.D.

Assistant Professors: Carolyn A. Dennehy, Ph.D.; Catherine S. Gardiner, Ph.D.; Stephen P. Mackessy, Ph.D.; Sheryl McGlamery, Ph.D.; Robert J. Reinsvold, Ph.D.; Gerald W. Saunders, Ph.D.

The biological sciences study the diverse forms of life ranging from microorganisms and mammals to fungi and vascular plants. Study of these organisms includes how they interact with each other and with their environment, their strategies for obtaining energy and maintaining themselves, and the impact they have on our society.

All undergraduate programs require a core of common courses with a varied emphasis in development, structure and function, heredity and diversity among organisms. These emphases provide students opportunity for preparation in liberal arts, field biology, human biology, cell biology, and secondary teaching in biology. Graduate programs are designed to meet the unique needs of students, enhancing their understanding of the biological sciences for teaching or for research.

Students are encouraged to participate in independent research projects or internships with both faculty members and agencies outside the University to gain experience not available in the classroom.

Animal maintenance facilities, museum, herbarium and green houses are available for laboratory support and research. Field studies are encouraged, since there is ready access to both prairie and mountain habitats. Expertise and research interests of the faculty include taxonomy of plants, animals and microorganisms; genetics; molecular biology; reproductive biology; plant and animal ecology; community and ecosystem structure; mammalogy; ornithology; plant and mammalian physiology; anatomy; and biology and science education.

The State of Colorado has mandated that institutions of higher education assess student outcomes resulting from their college education. The Department of Biological Sciences is requiring that all undergraduate students entering under this Bulletin meet the following conditions in addition to meeting the general graduation requirements of the University:

1. In the senior year of study all undergraduates will take the Educational Testing Service's nationally standardized exam in Biology.
2. All departmental majors are required to have a minimum of a 2.0 GPA in all BIO, BOT and ZOO prefix courses taken to meet their major requirements. Students receiving "D" or "F" grades in BIO, BOT or ZOO courses taken to meet their major requirements must repeat the courses or take suitable alternate courses approved by their major advisor.

Chemistry/Biochemistry Department

Location: Ross Hall 1380 **Telephone:** 970-351-2559

Chair: David Pringle

Professors: Clark L. Fields, Ph.D.; Henry W. Heikkinen, Ph.D.; Richard M. Hyslop, Ph.D.; M. Lynn James, Ph.D.; Roger A. Kovar, Ph.D.; Marcus K. McIlahn, Ph.D.; David L. Pringle, Ph.D.; James O. Schreck, Ph.D.; Richard W. Schwenz, Ph.D.

Associate Professor: Loretta L. Jones, Ph.D.

Assistant Professors: Aichun Dong, Ph.D.; Lynn C. Geiger, Ph.D.

The goal of the Department of Chemistry is to provide a high-quality education in chemistry for several different groups of students:

- Those individuals who wish to become chemists or to pursue professional programs that may build on a strong background in chemistry, such as health-related careers, etc.
- Those individuals whose career choices require a background in chemistry, such as nursing, dietetics and nutrition, biology, etc.
- Those individuals who elect to study chemistry as a part of their General Education program.
- Those students with a background in chemistry who wish to undertake advanced or graduate studies.

The chemistry faculty is committed to the attainment of this goal and has set excellence in instruction as its highest priority. Relatively small classes and dedicated teachers help accomplish this goal. Students and faculty have the opportunity to know each other very well. This facilitates obtaining help on an individual basis when it is needed for coursework and for program planning.

We are proud of the fact that our undergraduate degree has been approved by the American Chemical Society since 1968 and that our recently revised program was accepted. Graduates who elect to follow the approved program receive certification for this accomplishment.

Although the chemistry department is not formally divided, the areas of analytical, biological, inorganic organic and physical chemistry and chemical education are well represented in the backgrounds of our faculty. This enables us to offer a well-balanced program.

Laboratory facilities are available and the experimental aspects of chemistry are included as an integral part of all chemistry programs. Modern chemical instrumentation is available for student use. Students are taught how to operate these instruments and how to interpret and apply the results. They are encouraged to use as much of this instrumentation as possible in their programs.

Access to microcomputers and to terminals of the large campus computers makes use of computers within chemistry courses possible.

Research opportunities are available to chemistry students in all programs. Students can work with faculty who are involved in research selected from most of the basic areas of chemistry, including chemical education.

At the undergraduate level, students are encouraged to work on independent research problems in their junior and senior years and to present the results of their work in departmental seminars and at the regional meeting of the affiliates of the American Chemical Society and the Colorado-Wyoming Academy of Science.

At the graduate level, most degree programs require research. The results of a graduate student's efforts are reported in a dissertation or thesis and may be presented at meetings and submitted for publication.

Earth Sciences Department

Location: Ross Hall 3320 **Telephone:** 970-351-2647

Chair: William D. Nesse

Professors: L. Glen Cobb, Ph.D.; Richard D. Dietz, Ph.D.; Jay K. Hackett, Ed.D.; William H. Hoyt, Ph.D.; William D. Nesse, Ph.D.; K. Lee Shropshire, Ph.D.

Associate Professors: D. Andre Erasmus, Ph.D.; Kenneth D. Hopkins, Ph.D.

The Department of Earth Sciences includes the disciplines of geology, meteorology, oceanography and astronomy. Geology is the study of the earth, its structure, composition and history. Meteorology is the study of the atmosphere and the weather phenomena that affect our daily lives. Oceanography is the study of the physical, chemical and biologic characteristics of the world's oceans. Astronomy is the study of the planets, stars and galaxies that make up our universe.

The undergraduate program in the earth sciences provides preparation for professional careers in geology, meteorology and secondary level earth science teaching and also allows students to create programs of studies that are tailored to individual interests and goals. The graduate program is designed to meet the needs and interests of individuals who wish to expand their knowledge of the earth sciences as science teachers or in other careers that require a knowledge of the earth sciences.

The Department of Earth Sciences emphasizes the integration of field and laboratory study and students are encouraged to undertake independent research projects and internships.

Economics Department

Location: Michener L130 **Telephone:** 970-351-2739

Chair: Marie L. Livingston

Professors: Marie L. Livingston, Ph.D.; John W. Green, Ph.D.

Associate Professors: Kelfala Kallon, Ph.D.

Assistant Professors: David R. Aske, Ph.D.; Patricia E. Graham, Ph.D.; Bruce McDaniel, Ph.D.

The economics discipline provides a logical, orderly way of describing, analyzing and finding solutions to the numerous diverse economic problems and issues that people and societies face.

Topics in economics have a broad range, including how individuals and businesses make intelligent economic decisions to how governments deal with vital current problems like unemployment, inflation, international trade and economic growth.

As a discipline, economics is attractive to students and commands prestige because it is challenging, has a wide focus and is not static; the discipline contains theory, mathematics, models and scientific method.

The economics department takes part, with other College of Arts and Sciences departments and programs, in offering quality liberal arts education, but the department also has very close ties with the College of Business Administration and several interdisciplinary programs, including the International Trade and Relations program.

Economics major and minor students usually take not only other social science courses such as political science and sociology, but also supporting and elective courses in business, mathematics and computer science.

The department participates in the Honors program and arranges limited internships.

English Department

Location: Michener L50 **Telephone:** 970-351-2971

Chair: Jane Hinds

Professors: John Brand, Ph.D.; Edward A. Kearns, M.A.; Rita Kiefer, M.A.; Joyce Lackie, Ph.D.; John Loftis, Ph.D.; Norman Peercy, Ph.D.; Tomas Santos, Ph.D.; Sharon Wilson, Ph.D.; Lloyd D. Worley, Ph.D.

Associate Professors: Barbara A. D. Dickinson, Ph.D.; Elizabeth Jane Wall Hinds, Ph.D.; Joonok Huh, Ph.D.; Ben Varner, Ph.D.

Assistant Professors: Thomas A. Bredehoft, Ph.D.; Elena Del Rio, Ph.D.; Marcus Embry, B.A.; Emily Golson, Ph.D.; Dan Miller, Ph.D.; Tracey Sedinger, Ph.D.

Instructors: Diane Albertini, M.A.; Becky Edgerton, Ed.D.; Mark Lechlitter, M.A.

The discipline of English treats literature and language and several related subjects such as creative writing, film, folklore and myth. Creative artists refuse to be limited in their subjects or approaches. Literature, as one writer has said, is "an eloquent artistic document, infinitely varied, of mankind's journey; the autobiography of the race's soul." The questions we ask in studying literature are as "infinitely varied" as those asked by poets, playwrights and novelists: What does it mean to be human? How is the individual related to society? By what values should one lead his or her life?

The study of literature and language requires rigorous discipline and sensitivity, a strict adherence to the highest standards of logic, evidence and argumentation, as well as creative response to language and form. One learns to think, research and write critically, while simultaneously developing sensitivity to language and to the complexities of people and situations.

Foreign Languages Department

Location: Candelaria 32 **Telephone:** 970-351-2040

Chair: David Caldwell

Professors: Glenda Brown, Ph.D.; Kathleen Ensz, Ph.D.

Associate Professors: David Caldwell, Ph.D.; Peter Kastner-Wells, Ph.D.

The undergraduate program in French or German offers the student the opportunity to acquire the four language skills — speaking, listening, reading and writing and to study the culture and literature of the country.

Because it is necessary to attain a high level of skill for all careers in the field of foreign languages, our classes are performance-oriented. Conversational abilities are stressed at all levels and a number of advanced level skill-building courses are offered to promote the greatest possible fluency. In addition, courses are conducted almost exclusively in the target language. The department also provides an up-to-date language laboratory for individual work.

We hope it is possible for many of our majors and minors to study in their target countries as a normal part of their professional development.

In addition to our conventional classroom program, we offer a number of extracurricular programs and activities for our students. Conversation hours are regularly held on various parts of the campus to give the students opportunities to practice their foreign language. There is also a German Club and a French Club whose activities are open to all students studying the language.

On the graduate level occasional workshops, institutes or single courses are offered during the summer to provide students who have a B.A. in French or German with the opportunity for professional development in the area of foreign language teaching in the secondary school and a chance to renew language skills by engaging in an intensive immersion experience. During these workshops, materials suitable for use in the classroom may be developed by the student, often in conjunction with a guest lecturer from off-campus. Students are also encouraged to speak their language at all times during these weeks on campus.

Geography Department

Location: Candelaria 214 **Telephone:** 970-351-2715

Chair: Richard K. Ormrod

Professors: David B. Cole, Ph.D.; Charles O. Collins, Ph.D.; John L. Dietz, Ph.D.; Richard K. Ormrod, Ph.D.; Charles G. Schmidt, Ph.D.; Steven L. Scott, D.A.

Assistant Professor: James P. Doerner, Ph.D.

Geography is the study of the social, environmental and locational processes that create diversity from place to place on the earth's surface. The geographic perspective helps to explain the reasons for and the significance of local, regional and world patterns and analyzes the role of locational factors in human affairs.

All programs provide the opportunity for directed independent study and actual experience as interns.

The Department of Geography is housed in a modern, air-conditioned building located next to the University library. The department possesses its own cartography laboratory and a small computer laboratory. A large, well-organized map collection is available in the University library. The University also has modern computer facilities that are readily accessible to all students.

Hispanic Studies Department

Location: Candelaria 33 **Telephone:** 970-351-2811

Chair: Alfonso Rodriguez

Professors: Roberto H. Cordova, Ph.D.; Ester Gimbernat de Gonzalez, Ph.D.; Maria E. Lopez, Ph.D.; Alfonso Rodriguez, Ph.D.; Teresa B. Rodriguez, Ph.D.

Associate Professors: Terry Lynn Ballman, Ph.D.; Priscilla Falcon, Ph.D.; Carlos Leal, Ed.S.

Assistant Professors: Genevieve Canales, Ph.D.; Liliana Castro, M.A.

The Department of Hispanic Studies offers courses in Spanish language and literature, Peninsular and Latin American civilization and culture, Mexican-American studies, bilingual/bicultural education and teaching English as a second language. All areas of Hispanic language, literature and culture are taught in the same department in order to offer students degree programs that integrate related areas of study and to maximize faculty expertise.

Departmental facilities include a fully-equipped language laboratory, student resource library and student conversation and study lounges. Faculty are readily available for advising and consultation. A study-abroad program has been established and majors and minors are encouraged to participate in this spring semester intensive program in which they may earn 12 or more credit hours. Freshman and sophomore students may take part in this program and may take some courses for General Education credit.

Current research interests of the department faculty include: Mexican-American art, Hispanic music and culture, Latin American short story, foreign language teaching methodology, 20th century Spanish theater, Colorado Chicano history, Southwest linguistics, bilingual educational materials and contemporary women Hispanic authors.

History Department

Location: Michener L95 **Telephone:** 970-351-2905

Chair: Barry Rothaus

Professors: Marshall Clough, Ph.D.; Mathew T. Downey, Ph.D.; Ronald Edgerton, Ph.D.; Stephen Powers, Ph.D.; Barry Rothaus, Ph.D.; Gail Rowe, Ph.D.; Janet Worrall, Ph.D.

Associate Professors: Alexander Knott, Ph.D.; Nancy Spatz, Ph.D.; Michael Welsh, Ph.D.

Assistant Professors: Joan Clinefelter, Ph.D.; Fritz Fischer, Ph.D.; Jennifer Frost, Ph.D.; Joan A. Pratt, Ph.D.

The discipline of history concerns itself with the record of the human past, thereby forming an indispensable background for all other areas of knowledge, whether in the humanities, social sciences or sciences.

It is the role of the history department at UNC to offer a series of courses that address the significant events in the human past for the purpose of liberally educating students from all areas of the University. The department has a second, but no less important, role in training teachers at both the graduate and undergraduate levels.

Journalism and Mass Communications Department

Location: Candelaria Hall 123 **Telephone:** 970-351-2726

Chair: Charles H. Ingold

Associate Professors: David L. Anderson, M.A.; Charles H. Ingold, Ph.D.

Assistant Professor: Anita Fleming-Rife, M.A.

Instructors: Michael D. Applegate, M.A.; William W. Woodward, M.A.

Career preparation and understanding of the mass communications media are two significant benefits of majoring in this discipline. Undergraduates are able to choose from among three emphases: news-editorial, telecommunications and public relations and advertising media. Professionally-experienced, academically-qualified faculty members in each emphasis provide opportunities for instruction and skills enhancement. Modern facilities include a closed-circuit radio station, a color TV studio and a computerized newswriting lab.

Mathematical Sciences Department

Location: Ross Hall 3220 **Telephone:** 970-351-2820

Chair: Richard M. Grassl

Professors: William L. Blubaugh, Ph.D.; William W. Bosch, Ph.D.; J. Wey Chen, Ph.D.; Donald D. Elliott, Ph.D.; Richard M. Grassl, Ph.D.; Robert L. Heiny, Ph.D.; Steven C. Leth, Ph.D.; Charles R. McMerney, Ph.D.; Igor Szczyrba, Ph.D.

Associate Professors: Dean Allison, Ph.D.; Ricardo Diaz, Ph.D.; Jeff D. Fanner, Ph.D.; Peter Isaacson, Ph.D.; Robert Mayes, Ph.D.; Sinai Robins, Ph.D.; Terry A. Scott, Ph.D.

Assistant Professors: Cathleen Craviotto, Ph.D.; Lawrence Mark Lesser, Ph.D.; Jodie Novak, Ph.D.

Mathematics and related areas have been important human endeavors since ancient times. Mathematics is a discipline with its own questions, methods and content. It has also been used as a tool to explain the natural world for centuries. Mathematics, statistics and computer science have become essential to almost every other discipline such as business, economics, psychology and the social sciences.

The mathematics, statistics and computer science programs in our department reflect the dual nature of these areas. Undergraduate courses, minors and majors can be used as an important component of a variety of programs.

Philosophy Department

Location: Weber House **Telephone:** 970-351-2572

Chair: Thomas K. Trelogan

Professor: Paul Hodapp, JD, Ph.D.

Associate Professors: Richard A. Blanke, Ph.D.; Jack Temkin, Ph.D.

Assistant Professor: Thomas K. Trelogan, B.A.

Philosophy is the ongoing attempt to remain true to the spirit of the Socratic dictum: "The unexamined life is not worth living." As such, it entails serious reflection on all of our fundamental convictions and beliefs, with an eye in particular to the clarification of the concepts that these involve and the discovery of reasons for regarding these convictions and beliefs as either true or false.

The Department of Philosophy places special emphasis on helping its students to become capable of such serious reflection and it does so not only in the courses it offers primarily for its majors and minors, but in those it offers primarily as service courses for students of other disciplines as well.

Physics Department

Location: Ross Hall 0430 **Telephone:** 970-351-2961

Chair: Willard L. Fadner

Professor: Willard L. Fadner, Ph.D.

Associate Professors: Cynthia Galovich, Ph.D.; William Helms, Ph.D.; Kendall Mallory, Ph.D.; Robert A. Walch, Ph.D.; Courtney Willis, Ph.D.

Assistant Professor: Ruwang Sung, Ph.D.

Instructor: Wendy Adams, M.S.

Small, personalized classes are a hallmark of all the programs offered by the Physics Department. The student is assured of consideration and expert guidance, with excellent opportunities to thoroughly develop personal skills at a pace compatible with needs. From the earliest to the most advanced physics courses, the student has direct contact with faculty members. Junior and senior laboratories, in which students work on sophisticated experiments extending over several weeks, are common. Students are encouraged to become involved in their own research projects under faculty guidance. These investigations often extend over several semesters or are pursued through cooperative internships in government laboratories or industry.

The physics department has a well-equipped electronics lab and access to a machine shop. An electronic technician and an instrument fabricator are available to help with classroom needs, as well as in special projects and research. A laboratory with high-speed personal computers is adjacent to the Physics office. Computer use is thoroughly integrated into physics classes and curricula. The department has developed award-winning computer software to enhance the first-year laboratories.

A well-equipped nuclear laboratory features a neutron howitz, radioactive materials, various detectors and multichannel analyzer equipment. A General Electric X-Ray diffraction unit is available for studying the structure of minerals. Spectrophotometers, a Bausch and Lomb spectrometer, a mass spectrometer and a Varian nuclear magnetic resonance instrument are available in cooperation with the chemistry department. The optics laboratory includes facilities for holography, gas and organic dye lasers and a photographic darkroom.

In addition to degree programs, the Department of Physics offers a varied selection of General Education courses concerned with energy problems, space travel, the cosmos, science and society, scientific revolutions and a survey course in physical science.

Political Science Department

Location: Weber House **Telephone:** 970-351-2058

Chair: Steve Mazurana

Professors: John T. Bookman, Ph.D.; Herman Lujan, Ph.D.; Steve Mazurana, M.A.

Associate Professor: Stan Luger, Ph.D.

Assistant Professors: Kelechi Kalu, M.A.; Susan Kirkpatrick, Ph.D.

Political Science is the study of that activity whereby public policy is made and implemented. Political scientists are, therefore, concerned with all those ideas, institutions, processes and policies that constitute that activity such as equality, legislatures, political socialization and welfare. The department emphasizes the development of undergraduate writing skills; it also offers qualified students the opportunity to complete an internship in organizations such as Weld County government, the United States Congress and the Colorado governor's office. The department values serious discussion of political issues among faculty and students and conducts many classes as discussions rather than as lectures.

The Department of Political Science labors in the cause of citizenship by providing a foundation of information upon which informed judgments can be made by developing the analytical skills necessary to think critically and by promoting reflection about values. The department also seeks to prepare students in this way for professional success in local, state and federal government, the law, journalism, public relations, teaching and business. Graduates of the program are also qualified for graduate work in various emphases of political science.

Psychology Department

Location: Candelaria Hall 30 **Telephone:** 970-351-2957

Chair: Eugene P. Sheehan

Professors: William A. Barnard, Ph.D.; Theodore Bashore, Ph.D.; Grant L. Morris, Ph.D.; Charles S. L. Poston, Ph.D.; Paul D. Retzlaff, Ph.D.; Eugene P. Sheehan, Ph.D.

Associate Professors: Mark B. Alcorn, Ph.D.; Susan Plock Bromley, Psy.D.; David Gilliam, Ph.D.; Carl Granrud, Ph.D.; Nancy J. Karlin, Ph.D.; Marilyn Welsh, Ph.D.

Assistant Professor: Lora Schlewitt, Ph.D.

The goal of psychology is to understand behavior. A psychologist seeks to predict behavior and to apply that knowledge for the benefit of people with a variety of needs. A psychologist may strive to assist people in realizing their full potential or help those experiencing problems in living.

Sociology Department**Location:** Candelaria Hall 228 **Telephone:** 970-351-2315**Chair:** Jacqueline Stanfield**Criminal Justice Office****Location:** Candelaria Hall 238 **Telephone:** 970-351-2315**Director:** Philip Reichel**Family Studies Office****Location:** Candelaria Hall 233 **Telephone:** 970-351-2315**Director:** Pamela G. Hewitt**Sociology of Education Office****Location:** Candelaria Hall 245 **Telephone:** 970-351-2315**Director:** James Marshall**Social Issues Office****Location:** Candelaria Hall 243 **Telephone:** 970-351-2315**Director:** Daniel O'Connor**Professors:** John Fox, Ph.D.; Pamela G. Hewitt, Ph.D.; Karen Jennison, Ph.D.; David Musick, Ph.D.; Philip Reichel, Ph.D.; Richard G. Trahan, Ph.D.; John A. Vonk, Ph.D.**Associate Professors:** James Marshall, Ph.D.; Jacqueline Stanfield, Ph.D.**Assistant Professors:** Hedy Red Dexter, Ph.D.; Melanie Moore, Ph.D.; Daniel O'Connor, Ph.D.

Sociology is the study of social life. It is the scientific investigation of human society and the social interactions that emerge among people. The main focus of sociology is the group rather than the individual. Sociologists attempt to understand the social and cultural forces that operate throughout society and the forces that mold individuals, shape their behavior and thus determine social events.

Sociologists attempt to understand the world of human relations. In order to carry out their investigations, sociologists employ methods of gathering data from the social world. Generally, methods are either quantitative (e.g., survey) or qualitative (e.g., participant observation). Sociological theories accompany methods in enabling us to understand the social world. Social theories are explanations offered to account for a set of social phenomena. Together, methods and theory provide the foundation for the science of sociology.

Sociologists perform a wide variety of tasks. Most are employed as teachers, researchers, administrators, counselors or policy consultants. One area in which sociologists receive training, is statistical techniques and analysis, which are useful in a wide variety of careers. Many sociologists are engaged in basic research, the acquisition of knowledge for its own sake, while others are involved in applied research that provides directives, suggestions or answers related to a particular problem. An increasing number of sociologists are electing to apply their skills to the government, business and industry, health services and welfare as well as other nonprofit agencies (e.g., family planning, youth counseling, city planning). According to the American Sociological Association, "sociology's career potential is just beginning to be tapped" and "many sociologists predict that the next quarter century will be the most exciting and most critical period in the field's 150 year history."

Speech Communication Department**Location:** Candelaria Hall 121 **Telephone:** 970-351-2045**Chair:** Dennis Warnemunde**Professor:** Idahlynn Karre, Ph.D.**Associate Professors:** Linda Allen, Ph.D.; Patricia Arneson, Ph.D.; Dennis Warnemunde, Ph.D.**Assistant Professors:** Sherilyn Ferguson, Ph.D.; James Keaten, Ph.D.

The focus of the speech communication discipline is on the process of human communication. Classes in speech communication emphasize personal improvement in communication ability and examination of theories/research relevant to the field of speech communication.

Women's Studies Program**Location:** Michener L181-L182 **Telephone:** 970-351-2607**Coordinator:** D. Kim Reid**Professor:** D. Kim Reid, Ph.D.**Assistant Professor:** Hedy Red Dexter, Ph.D.**Instructor:** Sheilagh Mogford, M.A.

The basic goals of the Women's Studies Program and course offerings are to understand and overcome social myths about women and sex role stereotypes of women and men in order to enhance the dignity of all human beings and to provide unique opportunities for knowledge and understanding for all students.

Minor in Archaeological Anthropology

Program Requirements

Required Anthropology credits	15
Required elective credits	9
Total credits required for this minor	24

Students will learn concepts, field methods and laboratory techniques used by archaeologists to interpret and understand past cultural adaptations and how they relate to present-day cultural diversity. Archaeological Anthropology provides future historians and archaeologists a prehistoric and historic perspective on humanity and trains them in cultural analysis of prehistoric materials for greater appreciation of the content and evolution of human cultural diversity.

Archaeological Anthropology minors will be prepared to use the theories and methods of their minor option in their majors. Wherever possible, this minor program encourages field and laboratory experiences by students as a means of "bringing to life" the discipline's fundamental concepts, theories and goals. This is accomplished through methods classes with integrated field and laboratory experiences, professional internships and the annual Archaeology Field School. Lab fee required for field maintenance.

In addition to the Archaeological Anthropology minor, students may elect to choose an Interdisciplinary Major with an anthropology emphasis by combining that minor with 36 or more semester hours of courses selected in accordance with the regulations of the Interdisciplinary Program.

Minor in Cultural Anthropology

Program Requirements

Required Anthropology credits	15
Required elective credits	9
Total credits required for this minor	24

Students will learn both advanced concepts of cultural behavior and techniques of analysis, e.g. participant observation, interviewing and critical interpretation of cultural data. The use of cultural analysis clarifies problems in human relations and encourages healthy social environments.

Cultural Anthropology minors will be prepared to use the theories and methods of their minor concentration in their majors. Wherever possible, this minor program encourages field and laboratory experiences by students as a means of "bringing to life" the discipline's fundamental concepts, theories and goals. This is accomplished through methods classes with integrated field and laboratory experiences and professional internships.

In addition to the Cultural Anthropology minor, students may elect to choose an Interdisciplinary Major with an anthropology emphasis by combining that minor with 36 or more semester hours of courses selected in accordance with the regulations of the Interdisciplinary Program.

Required Anthropology Credits — 15 semester hours

ANT 100 Introduction to Anthropology	3
ANT 110 World Cultures	3
ANT 120 World Archaeology	3
ANT 220 Archaeological Research Methods	3

Select one of the following:

ANT 408 Workshop in Anthropology	3
ANT 420 Scientific Research in Archaeology	3
ANT 470 Seminar in Anthropology	3
ANT 480 Theory and Practice in Anthropology	3
ANT 492 Internship	3

Required Elective Credits — 9 semester hours

Select two of the following:

ANT 121 Archaeology of Colorado	3
ANT 321 New World Archaeology	3
ANT 323 The Origins of State Societies	3
ANT 324 Southwest United States Archaeology	3
ANT 325 Fieldwork in Archaeology	4
Select one 300 or higher numbered course from either the Cultural or Physical Anthropology minor	3

Required Anthropology Credits — 15 semester hours

ANT 100 Introduction to Anthropology	3
ANT 110 World Cultures	3
ANT 210 Field Methods in Cultural Anthropology	3
ANT 470 Seminar in Anthropology	3

Select one of the following:

ANT 408 Workshop in Anthropology	3
ANT 480 Theory and Practice in Anthropology	3
ANT 492 Internship	3

Required Elective Credits — 9 semester hours

Select two of the following:

ANT 310 World Area Studies	3
ANT 311 Latin American Cultures	3
ANT 312 North American Indians	3
ANT 313 Modernization and Development	3
ANT 314 Sex Roles in Cross-Cultural Perspective	3
ANT 315 Life History and Culture	3
ANT 317 Contemporary Native American Issues	3
Select one 300 or higher numbered course from either the Archaeological or Physical Anthropology minor	3

Minor in Multicultural Anthropology

Program Requirements

Required Anthropology credits	9
Required elective credits	15
Total credits required for this minor	24

This minor focuses on comparative concepts and issues related to multicultural behavior and group dynamics in contemporary US society. The experiences of ethnic groups, social classes and the cultural context of gender and sexuality provide the base of this minor. Multicultural Anthropology explores the basis of pluralism and cultural diversity in the U.S.

Multicultural Anthropology minors will be prepared to use the theories and methods of their minor concentration in their majors. Wherever possible, this minor program encourages field and laboratory experiences by students as a means of "bringing to life" the discipline's fundamental concepts, theories and goals.

In addition to the Multicultural Anthropology minor, students may elect to choose an Interdisciplinary Major with an anthropology emphasis by combining that minor with 36 or more semester hours of courses selected in accordance with the regulations of the Interdisciplinary program.

Required Anthropology Credits — 9 semester hours

ANT 100 Introduction to Anthropology	3
MCS 101 Multiculturalism in the US: Concepts and Issues	3
ANT 210 Field Methods in Cultural Anthropology	3

Minor in Physical Anthropology

Program Requirements

Required Anthropology credits	15
Required elective credits	9
Total credits required for this minor	24

Students will come to understand the process and knowledge base of human biological evolution. They will learn to apply statistical techniques to solving problems in human variability and environmental adaptations. The bio-cultural focus of Physical Anthropology is relevant to professional training in health and human services, environmental studies and physical education.

Physical Anthropology minors will be prepared to use the theories and methods of their minor concentration in their majors. Wherever possible, this minor program encourages field and laboratory experiences by students as a means of "bringing to life" the discipline's fundamental concepts, theories and goals. This is accomplished through methods classes with integrated field and laboratory experiences and professional internships.

In addition to the anthropology minor, students may elect to choose an Interdisciplinary Major with an anthropology emphasis by combining that minor with 36 or more semester hours of courses selected in accordance with the regulations of the Interdisciplinary Program.

Required Elective Credits — 15 semester hours

Select one of the following:

AFS 102 The Black Woman in America	3
AFS 240 Dynamics of Racism	3
EDF 201 Introduction to Multiculturalism	3
HISP 220 Women in Hispanic Society	3
HISP 225 History of the Chicano in the Southwest	3
SOC 237 Sociology of Minorities	3

Select two of the following:

ANT 311 Latin American Cultures	3
ANT 314 Sex Roles in Cross-Cultural Perspective	3
ANT 317 Contemporary Native American Issues	3
ANT 318 Native American Women	3

Select two of the following:

AFS 305 Survey of African-American Literature	3
AFS 340 The Black Family	3
AFS 360 Music and the Black Experience	3
AFS 396 African and Afro-American World Views	3
HISP 300 Social Stratification in the Mexican American Community	3
HISP 370 Chicano Psychology	3
PSY 467 Psychology of Prejudice	3
WS 320 Women in United States History	3
WS 373 Women-Identified Theory	3

(Different courses may be chosen with the consent of the minor advisor)

Required Anthropology Credits — 15 semester hours

ANT 100 Introduction to Anthropology	3
ANT 130 Introduction to Physical Anthropology	3
ANT 230 Anthropometrics	3
ANT 470 Seminar in Anthropology	3

Select one of the following:

ANT 408 Workshop in Anthropology	3
ANT 480 Theory and Practice in Anthropology	3
ANT 492 Internship	3

Required Elective Credits — 9 semester hours

Select two of the following:

ANT 330 Forensic Anthropology	3
ANT 331 Human Population Biology	3
ANT 430 Human Musculoskeletal Systems	3

Select one elective from either the Cultural or Archaeological Anthropology minors

3

Bachelor of Arts in Biological Sciences Emphasis in Cell Biology

Program Requirements

Required Biological Science credits	27
Required supporting credits	41-42
Required elective credits (minimum)	10
General Education credits:	
13-14 credits already included in requirements above	
Remaining	26-27
Elective credits	14-16
Total credits required for this degree	120

This program emphasizes a thorough understanding of the biological principles underlying all living systems through study of the basic unit of life, the cell. Students should have an interest in working in research or industrial laboratories, including medical, microbiological or biotechnological laboratories. They should have a strong science and mathematics background in high school.

Students successfully completing this program will be well-prepared to continue their education in graduate biological sciences programs such as microbiology, genetics and molecular biology, as well as in most professional medical schools. Students will also be qualified to work in industrial and various research laboratories in medicine, microbiology and biotechnology. This program encompasses a minor in chemistry.

Required Biological Sciences Credits — 27 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	3
BIO 351 Microbiology	4
BIO 425 Molecular Genetics	3
BIO 450 Cell Physiology	4
BIO 465 Evolution	3
BIO 491 Senior Seminar	1

Bachelor of Arts in Biological Sciences Emphasis in Field Biology

Program Requirements

Required Biological Sciences credits	26
Required supporting credits	9
Required elective credits (minimum)	31
General Education credits:	
10 credits already included in requirements above	
Remaining	30
Elective credits	24
Total credits required for this degree	120

This program places heavy emphasis on organismal biology and on field courses. Students completing the program will acquire a broader background in science support courses than in other bachelor's level biological sciences programs. Students should have an interest in working with plants and animals in a field setting. A strong science and mathematics background in high school is beneficial to students wanting to become field biologists.

Students will be prepared to work for public or private sector environmental agencies such as state or federal wildlife agencies, the Bureau of Land Management, the National Park Service, the Environmental Protection Agency, various parks and recreation programs or private consulting agencies. They can also continue their education in graduate programs in the pure or applied biological sciences (botany, zoology, ecology, forestry, wildlife biology).

Required Biological Sciences Credits — 26 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	3
BIO 460 Ecology	4
BIO 465 Evolution	3
BIO 491 Senior Seminar	1
BOT 330 Plant Taxonomy	4
ENST 265 Conservation of Natural Resources	2

Required Supporting Credits — 41-42 semester hours

Chemistry Credits — 24 semester hours

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
CHEM 320 Theory and Use of Analytical Instruments	1
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 481 General Biochemistry I	3
CHEM 483 Experimental Biochemistry I	1

Physics Credits — 10 semester hours (select one group from the following):

PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
or	
PHYS 240 General Physics I	5
PHYS 241 General Physics II	5

Mathematics Credits (select two from the following):

MATH 124 College Algebra	4
MATH 125 Plane Trigonometry	3
or	
higher mathematics course	3-4

Note that some of the required courses in Chemistry, Physics and Mathematics will apply toward the General Education requirements.

Required Elective Credits — 10 semester hours (minimum)

BIO 458 Diagnostic Microbiology	4
BOT 270 Economic Botany	3
BOT 333 Morphogenesis of Algae and Fungi	4
BOT 350 General Plant Physiology	4
BOT 440 Anatomy and Morphogenesis of Plants	4
ZOO 333 General Parasitology	4
ZOO 345 Comparative Vertebrate Morphogenesis	4
ZOO 448 Histology/Microtechnique	3

Required Supporting Credits — 9 semester hours

CHEM 111 Principles of Chemistry I	5
CHEM 131 Introductory Organic Chemistry	4

Note that some of the required courses in Chemistry will apply toward the General Education requirement.

Required Elective Credits — 31 semester hours

Biological Science-Organismal Credits — 10 semester hours (minimum)

BIO 351 Microbiology	4
BIO 380 Aquatic Biology	4
BOT 333 Morphogenesis of Algae and Fungi	4
ZOO 350 Ornithology	3
ZOO 331 General Entomology	4
ZOO 332 Invertebrate Zoology	3
ZOO 333 General Parasitology	4
ZOO 334 Mammalogy	4
ZOO 335 Survey of Fishes, Amphibians and Reptiles	4

Biological Science, Free Elective Credits — 4 semester hours

Physics or Mathematics Credits — 10 semester hours (minimum)

PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
MATH 124 College Algebra	4
MATH 125 Plane Trigonometry	3
MATH 131 Calculus and Analytic Geometry I	4

Note that it is recommended that students complete either PHYS 220 and PHYS 221; or MATH 124, MATH 125 and MATH 131.

Statistics/Computer Science (select one from the following):

CG 105 Personal Computer Applications	3
STAT 150 Introduction to Statistical Analysis	3

Earth Science (select one from the following):

GEOL 100 General Geology	4
MET 205 General Meteorology	4

Bachelor of Arts in Biological Sciences Emphasis in Human Biology

Program Requirements

Required Biological Science credits	38
Required supporting credits	30
Required elective credits (minimum)	9
General Education credits:	
10 credits already included in requirements above	
Remaining	30
Elective credits	13
Total credits required for this degree	120

Intended for those students having an interest in the medical and paramedical professions, this program meets the minimal requirements of most professional schools of health science. Undergraduates entering this program should have a strong science and mathematics background in high school.

Students who successfully complete the program will be able to apply for admission to paramedical and medical, veterinary or dentistry professional programs. They will also be able to continue their education in graduate programs in the biological sciences (zoology, anatomy, physiology) or pursue careers in medical, scientific or pharmaceutical sales.

Required Biological Science Credits — 38 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	3
BIO 351 Microbiology	4
BIO 450 Cell Physiology	4

Bachelor of Arts in Biological Sciences Emphasis in Liberal Arts

Program Requirements

Required Biological Science credits	20
Required supporting credits (minimum)	23
Required elective credits (minimum)	21
General Education credits:	
10 credits already included in requirements above	
Remaining	30
Elective credits	26
Total credits required for this degree	120

This emphasis is the most broadly based biological sciences program at the University. It will meet the entrance requirements of most of the allied health professions such as physical therapy or chiropractic medicine. Students in elementary education licensure programs with an interest in the biological sciences should select this emphasis. It is critical that students meet with an advisor for specific requirements and direction.

Students will have a broad preparation in the biological sciences with skill needed to enter some professional programs, industry or other professions including agribusiness, food industries, cosmetics and sales. Additional courses may be needed for admission to graduate programs or some professional programs in the life sciences.

Required Biological Science Credits — 20 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	3
BIO 460 Ecology	4
BIO 465 Evolution	3
BIO 491 Senior Seminar	1

Required Supporting Credits — 23 semester hours

<i>Chemistry Credits — 9 semester hours</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 131 Introductory Organic Chemistry	4

BIO 460 Ecology	4
BIO 465 Evolution	3
BIO 491 Senior Seminar	1
BOT 270 Economic Botany	3
ZOO 341 Human Anatomy	3
ZOO 350 Human Physiology	4

Required Supporting Credits — 30 semester hours

<i>Chemistry Credits — 20 semester hours</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5

<i>Physics Credits — 10 semester hours</i>	
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5

Note that some of the required courses in Chemistry and Physics will apply toward the General Education requirement.

Required Elective Credits — 9 semester hours

Select from BIO, BOT or ZOO prefixes, 6	
<i>Mathematics/Applied Statistics Credits — 3 semester hours (minimum)</i>	
MATH 124 College Algebra	4
MATH 125 Plane Trigonometry	3
A higher level Mathematics course	3-4
STAT 250 Statistics for Health Sciences	3

Physics Credits — 5 semester hours

PHYS 220 Introductory Physics I	5
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Mathematics/Computer Science Credits — 5 semester hours (minimum)

MATH 124 College Algebra	4
or	
a higher Mathematics course	3
SCI 391 Computer Applications in Science	2

Earth Sciences Credits — 4 semester hours

GEOL 100 General Geology	4
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Note that some of the required courses in Chemistry, Physics, Mathematics and Earth Sciences will apply toward the General Education requirement.

Required Elective Credits — 21 semester hours

<i>Biological Science-Organismal — 10 semester hours (minimum)</i>	
BIO 351 Microbiology	4
BOT 330 Plant Taxonomy	4
BOT 333 Morphogenesis of Algae and Fungi	4
ZOO 330 Ornithology	3
ZOO 331 General Entomology	4
ZOO 332 Invertebrate Zoology	3
ZOO 333 General Parasitology	4
ZOO 334 Mammalogy	4
ZOO 335 Survey of Fishes, Amphibians and Reptiles	4
<i>Biological Science-Anatomy/Physiology — 7 semester hours (minimum)</i>	
BIO 450 Cell Physiology	4
BOT 350 General Plant Physiology	4
BOT 440 Anatomy and Morphogenesis of Plants	4

Select one of the following:

ZOO 245 Introduction to Human Anatomy and Physiology	4
ZOO 350 Human Physiology	4
ZOO 341 Human Anatomy	3

Note that credit not allowed for both ZOO 245 and ZOO 350.

Biological Science (select from BIO, BOT, or ZOO prefixes)	4
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Bachelor of Arts in Biological Sciences

Emphasis in Teaching-Secondary Biology

Program Requirements

Required credits	41
Required supporting credits(minimum)	26
Required elective credits(minimum)	9
General Education credits:	
10 credits already included in requirements above	
Remaining	30
PTEP program	37
Total credits required for this degree	143-145

This program leads to State of Colorado licensure in secondary science. Students receive in-depth training in biological sciences content and pedagogy plus a wide range of additional support science content. They should have an interest in teaching and have evidence of working successfully with young people. They should have a strong science and mathematics background in high school.

Students will meet licensure requirements of the Colorado Department of Education for teaching secondary science (grades 7-12). Upon the completion of this program students will also be able to continue their education in graduate programs in the biological sciences.

Required Credits — 41 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	3
BIO 351 Microbiology	4
BIO 371 Teaching Strategies for Biology Teachers	1
BIO 460 Ecology	4
BIO 465 Evolution	3
BIO 491 Senior Seminar	1
BOT 270 Economic Botany	3
BOT 350 General Plant Physiology	4

SCED 441 Methods of Teaching Secondary School Science	3
SCI 391 Computer Applications in Science	2
ZOO 245 Introduction to Human Anatomy and Physiology	4

Required Supporting Credits — 26 semester hours

<i>Chemistry Credits — 9 semester hours</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 131 Introductory Organic Chemistry	4
<i>Physics Credits — 10 semester hours</i>	
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
<i>Mathematics Credits — 3 semester hours (minimum)</i>	
MATH 124 College Algebra	4
or	
a higher level mathematics course	3-4
<i>Earth Science Credits — 4 semester hours</i>	
GEOL 100 General Geology	4
Note that some of the required courses in chemistry, physics, mathematics, and earth sciences will apply toward the General Education requirement.	

Required Elective Credits — 9 semester hours (minimum)

Select from BIO, BOT or ZOO prefix	2
<i>Earth Sciences (select one of the following):</i>	
AST 100 General Astronomy	4
GEOL 201 Physical Geology	4
MET 205 General Meteorology	4
<i>Mathematics/Statistics (select one of the following):</i>	
MATH 125 Plane Trigonometry	3
STAT 150 Introduction to Statistical Analysis	3

Note

Completion of PTEP is necessary for this program.

Master of Arts in Biological Sciences

Non-Thesis

Program Requirements

Complete the required credits specified here6
 Complete program electives specified here24

For students, especially secondary biology and science teachers, needing to expand their background in the biological sciences and to enhance their research skills.

Students will broaden their basic knowledge of the biological sciences and gain some experience in research methodology. They may also improve their understanding of the support sciences and science pedagogy.

Admission Requirements

Students should have completed a minimum of one year of biological science and one year of chemistry before admission to the program. In addition to the application form and transcripts that are sent to the Graduate School, applicants must also send the following (to the Graduate Coordinator of the Biological Sciences department):

- a letter of intent including research/teaching interests and goals
- three letters of recommendation
- GRE scores (strongly recommended, Biology section scores optional).

Required Credits — 6 semester hours

BIO 690 Invited Topics in Biological Science	0.5
BIO 691 Seminar in Biological Science	0.5
BIO 694 Foundation of Biological Research	2
BIO 697 Graduate Research	3

Note that results of the graduate research project must be presented orally to the biological sciences faculty.

Required Elective Credits — 24 semester hours

Basic Electives Credits — 10 semester hours (minimum)

BIO 525 Molecular Genetics	3
BIO 550 Cell Physiology	4
BOT 530 Plant Taxonomy	4
BOT 533 Morphogenesis of Algae and Fungi	4
BOT 540 Anatomy and Morphogenesis of Plants	4
BOT 550 General Plant Physiology	4
ZOO 533 General Parasitology	4
ZOO 534 Mammalogy	4
ZOO 535 Survey of Fishes, Amphibians and Reptiles	4

Note that all of the above courses are double numbered.

Advanced Study Electives — 8 semester hours (minimum)

BIO 545 Cytology	3
BIO 569 Conceptual Issues in Evolution	2

BIO 621 Advanced Genetics	3
BIO 655 Advanced Microbiology	4
BIO 662 Human Ecology	3
BOT 560 Plant Ecology	4
BOT 575 Fungal Diseases of Plants	4
BOT 655 Advanced Plant Physiology	3
ZOO 542 Vertebrate Histology	4
ZOO 551 Mammalian Physiology I	4
ZOO 552 Mammalian Physiology II	4
ZOO 560 Animal Ecology	4
ZOO 636 Advanced Invertebrate Zoology	4
ZOO 645 Comparative Vertebrate Adaptations	4

Enrichment and Non-Scheduled Electives — 3 semester hours minimum

BIO 501 Current Issues in Biology	1
BIO 508 Workshop	1-6
BIO 513 Professional Renewal	1-10
BIO 585 Topics in Field Biology	1-10
BIO 592 Internship in Biological Science	1-3
BIO 595 Special Topics in Biology	3
BIO 622 Directed Study (non-scheduled)	1-3
BOT 595 Special Topics in Botany	2
BOT 622 Directed Study in Botany (non-scheduled)	1-3
SCED 508 Workshop	1-6
SCED 513 Professional Renewal	1-12
ZOO 595 Special Topics in Zoology	2
ZOO 622 Directed Study in Zoology (non-scheduled)	1-3

Note that hours can be selected, with the approval of the student's advisor, from the above list of enrichment and non-scheduled classes or other appropriate classes in math, supporting sciences or education, with approval of advisor.

Required Electives — 3 semester hours minimum

Select with approval of advisor3

Notes

Students must complete a minimum of 50 semester hours in biological science of combined undergraduate and graduate courses.

The student must meet with a graduate advisor and graduate committee early in the program to determine a course of study. Electives must be selected to assure background and experience in the fundamental areas of biological sciences.

Written comprehensive examinations are required.

Master of Arts in Biological Sciences

Thesis

Program Requirements

Complete the required credits specified here3
 Complete program electives specified here27

For students wanting to broaden their background in the biological sciences and to develop their research skills in preparation for a doctoral program or a research career. Students will gain the background in biological science and in research to allow them to enter professional fields of biology requiring advanced training or to enter advanced studies.

Admissions Requirements

Students should have completed a minimum of one year of biological science and one year of chemistry before admission to the program. In addition to the application form and transcripts that are sent to the Graduate School, applicants must also send the following (to the Graduate Coordinator of the Biological Sciences department):

- a letter of intent including research/teaching interests and goals
- three letters of recommendation
- GRE scores (Biology scores optional)

Required Credits — 3 semester hours

BIO 690 Invited Topics in Biological Science0.5
 BIO 691 Seminar in Biological Science0.5
 BIO 694 Foundations of Biological Research2

Required Elective Credits — 27 semester hours

Basic Electives — 7 semester hours minimum

BIO 525 Molecular Genetics3
 BIO 550 Cell Physiology4
 BOT 530 Plant Taxonomy4
 BOT 533 Morphogenesis of Algae and Fungi4
 BOT 540 Anatomy and Morphogenesis of Plants4
 BOT 550 General Plant Physiology4
 ZOO 533 General Parasitology4
 ZOO 534 Mammalogy4
 ZOO 535 Survey of Fishes, Amphibians and Reptiles4

Note that all of the above courses are double numbered.

Advanced Study Electives—8 semester hours minimum required

BIO 545 Cytology3
 BIO 569 Conceptual Issues in Evolution2
 BIO 621 Advanced Genetics3
 BIO 655 Advanced Microbiology4
 BIO 662 Human Ecology3
 BOT 560 Plant Ecology4

BOT 575 Fungal Diseases of Plants4
 BOT 655 Advanced Plant Physiology3
 ZOO 542 Vertebrate Histology4
 ZOO 551 Mammalian Physiology I4
 ZOO 552 Mammalian Physiology II4
 ZOO 560 Animal Ecology4
 ZOO 636 Advanced Invertebrate Zoology4
 ZOO 645 Comparative Vertebrate Adaptations4
Enrichment and Non-Scheduled Electives — 3 semester hours minimum
 BIO 501 Current Issues in Biology1
 BIO 508 Workshop1-6
 BIO 513 Professional Renewal1-10
 BIO 585 Topics in Field Biology1-10
 BIO 592 Internship in Biological Science1-3
 BIO 595 Special Topics in Biology3
 BIO 622 Directed Study (non-scheduled)1-3
 BOT 595 Special Topics in Botany2
 BOT 622 Directed Study in Botany (non-scheduled)1-3
 SCED 508 Workshop1-6
 SCED 513 Professional Renewal1-12
 ZOO 595 Special Topics in Zoology2
 ZOO 622 Directed Study in Zoology (non-scheduled)1-3

Note that hours can be selected with the approval of advisor from the above list of enrichment and non-scheduled classes or other appropriate classes in the sciences or College of Education.

Research Elective — 1-6 semester hours

BIO 699 Thesis1-6
 BOT 699 Thesis1-6
 ZOO 699 Thesis1-6

Notes

Results of the thesis problem must be presented to the biological sciences faculty.

The student must meet with a graduate advisor and graduate committee early in the program to determine a course of study. Electives must be selected to assure background and experience in the fundamental areas of biological sciences.

Written comprehensive examinations are required.

Students must complete a minimum of 50 semester hours in biological science of combined undergraduate and graduate courses.

Doctor of Philosophy in Biological Education

Program Requirements

Complete required research core specified here	23-33
Complete program pedagogical electives specified here	11-19
Complete program content electives specified here	20-21
Complete program minimum hours to total	64

This program is designed for graduate students interested in post-secondary discipline-based education in the biological sciences. Areas of emphasis prepare students to conduct and to supervise discipline-based pedagogical research at the university or college level or in content instruction at the two- and four- year college level.

Admission Requirements

Students will be required to have completed 30 semester hours in the biological sciences, one year of chemistry and college algebra. A master's content thesis is required for students entering the program with a master's degree. This requirement may be met as a deficiency within the doctoral program. Students entering the program with only a baccalaureate degree will be required to complete a master's thesis equivalent research problem. In addition to the application form and transcripts that are sent to the Graduate School, applicants must also send the following (to the Graduate Coordinator of the Biological Sciences department):

- a letter of intent including research/teaching interest and goals
- three letters of recommendation
- GRE scores (Biology scores optional)

Required Research Core — 23-33 semester hours

BIO 690 Invited Topics in Biological Science	0.5
BIO 691 Seminar in Biological Sciences	0.5
BIO 694 Foundations in Biological Research	2
or	
SCED 694 Science Education Research	3
BIO 792 Doctoral Supervised Teaching	4
BIO 797 Doctoral Research Proposal	4
BIO 799 Doctoral Dissertation	12
*SRM 501 Applied Statistics I	3
*SRM 502 Applied Statistics II	3
*SRM 700 Advanced Research Methods	3
<i>*May be waived depending on course background of the student.</i>	

Pedagogical Elective Credits — 11-13 semester hours

SCED 676 Evaluation Classroom Performance in Science	2
SCED 678 Science Education Seminar	1-2
SCED 680 Science Curriculum Secondary/College Settings	3
EPSY 540 Theories and Principles of Learning	2
SCI 591 Computer Applications in Science	2
BIED 682 Problems in Teaching College Biology	3

Content Elective Credits — 20-21 semester hours

Basic Electives — 8 semester hours maximum

BIO 525 Molecular Genetics	3
BIO 550 Cell Physiology	4
BOT 530 Plant Taxonomy	4
BOT 533 Morphogenesis of Algae and Fungi	4
BOT 540 Anatomy and Morphogenesis of Plants	4
BOT 550 General Plant Physiology	4
ZOO 533 General Parasitology	4
ZOO 534 Mammalogy	4
ZOO 535 Survey of Fishes, Amphibians and Reptiles	4

Note that all of the above courses are double-numbered. Courses in the support sciences may also be included with approval of the graduate advisor.

Advanced Electives — 13-14 semester hours minimum

BIO 545 Cytology	3
BIO 569 Conceptual Issues in Evolution	2
BIO 621 Advanced Genetics	3
BIO 655 Advanced Microbiology	4
BIO 662 Human Ecology	3
BOT 560 Plant Ecology	4
BOT 575 Fungal Diseases of Plants	4
BOT 655 Advanced Plant Physiology	3
ZOO 542 Vertebrate Histology	4
ZOO 551 Mammalian Physiology I	4
ZOO 552 Mammalian Physiology II	4
ZOO 560 Animal Ecology	4
ZOO 636 Advanced Invertebrate Zoology	4
ZOO 645 Comparative Vertebrate Adaptations	4

Notes

The student must meet with a graduate advisor and graduate committee early in the program to determine a course of study. Electives must be selected to assure background and experience in the fundamental areas of research, pedagogy and content biology.

To meet the student's professional goals, courses may be selected from graduate courses in other sciences, science education, educational technology, educational management and computer science with the approval of the advisory committee.

Written and oral comprehensive examinations and defense of the dissertation are required.

All Ph.D. students must demonstrate competency in two acceptable research tools. Acceptable tools include statistics, computer application, foreign languages or collateral fields of study. Collateral fields of study must be approved by the Department and the Dean of the Graduate School.

Bachelor of Arts in Black Studies

Program Requirements

Required Black Studies credits	25-28
Required elective credits	12
General Education credits	40
Elective credits	43
Total credits required for this degree	122

Black Studies offers an interdisciplinary curriculum that promotes the study of the history, culture, philosophy, economy and political experience of people of African descent, especially those living in the United States, on the African continent, in Latin America and in the Caribbean. The curriculum is based on the assumption that there exists a substantive, intrinsically valuable body of knowledge that expresses the black experience and looks beyond a deficient past into a critical evaluation of a history of pre-slavery freedom and a future of unlimited possibilities. The program's courses are organized into two foci: social and behavioral studies and cultural studies.

Graduates in Black Studies will be prepared to enter professional and academic careers in the humanities and social sciences. They will possess accurate information about the histories and identities of people of African descent. They will be exposed to and contribute to scholarship about people of African descent and will have a liberal arts education and those skills necessary for working in multicultural environments. They will understand the struggles of people of African descent. As a job-related field, Black Studies fosters the intellectual and professional expertise valuable for positions in teaching (elementary, secondary and post-secondary levels), business, criminal justice, counseling, education and health-related fields. Additional applications include community resource development, urban planning, public and social policy analysis, law, social services, government (local, state and federal) and international relations. Graduates also qualify for graduate work in Black Studies, Africana Studies or Pan African Studies.

Required Black Studies Credits — 25-28 semester hours

AFS 100 Introduction to Black Studies	3
AFS 104 Survey of Africa	3
AFS 201 African American History I	3
AFS 202 African American History II	3
AFS 240 Dynamics of Racism	3

Bachelor of Arts in Black Studies Emphasis in Multicultural Education

Program Requirements

Required Black Studies credits	18
Required supporting credits	3
Required elective credits	18
General Education credits	40
PTEP program	43
Total credits required for this degree	122

Required Black Studies Credits — 18 semester hours

AFS 100 Introduction to Black Studies	3
AFS 102 The Black Woman in America	3
AFS 240 Dynamics of Racism	3
AFS 340 The Black Family	3
AFS 396 African and African American World Views	3
AFS 486 Current Issues in Multicultural Education	3

Required Supporting Credits — 3 semester hours

EDF 201 Introduction to Multiculturalism	
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Required Elective Credits — 18 semester hours

<i>Cultural Issues in American Society (select three of the following):</i>	
ENG 236 Ethnic American Literature	3
GEOG 110 Geography of the United States and Canada	3
HIST 230 Class and Culture in America	3
MIND 182 Confluence of Cultures	3
PSY 467 Psychology of Prejudice	3
SOC 237 Sociology of Minorities	3
SOC 333 Social Class and Inequality	3

Note that at least one class from this category must be at or above the 300-level.

AFS 305 Survey of African American Literature	3
AFS 386 Modern African World	3
AFS 399 Community Study Project	1-4
AFS 490 Seminar in Black Studies	3

Required Elective Credits — 12 semester hours

Social and Behavioral Studies (select two of the following):

AFS 102 The Black Woman in America	3
AFS 222 Black Nationalism in America	3
AFS 320 The Economic Experience of Black America	3
AFS 332 Pan-Africanism	3
AFS 395 Aspects of the African American Experience	3
AFS 420 Black Urban Politics	3
AFS 456 Leadership and the Black Church	3

Cultural Studies (select two of the following):

AFS 101 Crisis of Identity	3
AFS 204 Introduction to African Literature	3
AFS 230 Black Women in Literature	3
AFS 340 The Black Family	3
AFS 360 Music and the Black Experience	3
AFS 395 Aspects of the African American Experience	3
AFS 420 Black Urban Politics	3
AFS 486 Current Issues in Multicultural Education	3
ID 308 Interpersonal Growth Workshop	3

Notes

Electives are chosen with the approval of the chair.

The course, AFS 395, Aspects of the African American Experience, is a variable subtitle course. Students may elect this course more than once, each time with materials applicable to a different program focus, but may not repeat the same subtitle in a program focus where the student has already taken the course for credit.

Majors in Black Studies must choose at least one elective at the 300-level and one elective at the 400-level. Also, for majors, AFS 399 must always be taken at 3 semester hours.

Cultural Groups in American Society (select three of the following):

ANT 317 Contemporary Native American Issues	3
HISP 102 Hispanic Cultures in the United States	3
HIST 329 American Indian History	3
MCS 101 Multiculturalism in the United States	3
PSY 370 Chicano Psychology	3
WS 120 Women and Men in Perspective	3
WS 320 Women in United States History	3

Note that at least one class from this category must be at or above the 300-level.

Notes

This program is specifically designed for elementary school teacher candidates. Students must take the PTEP program specific to the level desired for licensure.

This program does not require a minor.

A grade point average of at least 2.75 and a minimum of 27 credit hours are required before a student can apply for student teaching.

A minimum of 18 semester hours in the major is required before a student can apply to the PTEP program. At least 9 of these hours must be credits from the University of Northern Colorado.

Courses counted towards the requirements for this major will not be counted toward category 7 of the General Education requirements in the UNC catalog.

If SOC 237 and MCS 101 are taken as electives here, then EDEL 619 must be taken to fulfill PTEP requirements.

There may be additional PTEP requirements. See your PTEP advisor.

Bachelor of Arts in Chemistry

Emphasis in Biochemistry (ACS Certified)

Program Requirements

Required Chemistry core credits	24-26
Required Chemistry credits	25
Required supporting credits	29
General Education credits:	
9 credits already included in requirements above	
Specified	7
Remaining	24
Elective credits	13-15
Total credits required for this degree	120

This program is designed to give students a broad background in five areas of chemistry (including analytical chemistry, biochemistry, inorganic chemistry, organic chemistry and physical chemistry) and biology. Students will have the opportunity to work with a faculty member on an independent research project in chemistry. Students receiving this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree emphasis will be prepared to pursue graduate study in chemistry, biochemistry, molecular biology, environmental health, professional schools (e.g., medicine, dentistry, veterinary medicine and other health-related areas) or obtain an entry position within the chemical or biotechnological industry.

Required Chemistry Core Credits — 24-26 semester hours

<i>Select one of the following groups:</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2

Required Chemistry Credits — 25 semester hours

CHEM 421 Instrumental Analysis	4
CHEM 442 Inorganic Chemistry II	2
CHEM 443 Inorganic Chemistry Laboratory	1
CHEM 451 Physical Chemistry I	4
CHEM 453 Physical Chemistry I Laboratory	1
CHEM 452 Physical Chemistry II	4
CHEM 454 Physical Chemistry II Laboratory	1
CHEM 481 General Biochemistry I	3
CHEM 482 General Biochemistry II	3
CHEM 483 Experimental Biochemistry I	1
CHEM 484 Experimental Biochemistry II	1

Required Supporting Credits — 29 semester hours

<i>Mathematics</i>	
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
<i>Physics</i>	
PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
<i>Biology</i>	
BIO 110 Principles of Biology	4
BIO 450 Cell Physiology	4
BIO 220 Genetics	5

General Education Credits, Specified — 7 semester hours

This program requires you to complete the following course(s) within the 40 hours of General Education.

Category 1b — Intermediate Composition

SCI 291 Scientific Writing	3
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Category 2 — Mathematics

MATH 131 Calculus and Analytic Geometry I	4
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Category 6 — Sciences and Mathematics

MATH 132, PHYS 240 and CHEM 111 or CHEM 114 required in this program, will fulfill this requirement.

Notes

Qualifying students may be eligible for a five-year program resulting in a B.A./M.A. degree. Consult your advisor early in your program for details.

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 221, MATH 335, STAT 150, PHYS 321 and PHYS 343.

Juniors and seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honor's Program should consult their advisors about general education selections and other requirements.

Bachelor of Arts in Chemistry Emphasis in Chemistry (ACS Certified)

Program Requirements

Required Chemistry core credits	24-26
Required Chemistry credits	17
Required supporting credits	18
Required elective credits	4-5
General Education credits:	
9 credits already included in requirements above	
Specified	7
Remaining	24
Elective credits	17-14
Total credits required for this degree	120

This program is designed to give students a broad background and an in-depth foundation in four areas of chemistry including analytical, inorganic, organic and physical chemistry. Students have the opportunity to work with a faculty member on an independent research project in chemistry. Students receiving this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree emphasis are prepared to pursue graduate study in chemistry, professional schools (e.g., chemical engineering, medicine, dentistry, veterinary medicine and other health sciences) or an entry-level position with a chemical or petroleum company.

Required Chemistry Core — 24-26 semester hours

Select one of the following groups:

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2

Required Chemistry Credits — 17 semester hours

CHEM 421 Instrumental Analysis	4
CHEM 442 Inorganic Chemistry II	2
CHEM 443 Inorganic Chemistry Laboratory	1
CHEM 451 Physical Chemistry I	4
CHEM 453 Physical Chemistry I Laboratory	1
CHEM 452 Physical Chemistry II	4
CHEM 454 Physical Chemistry II Laboratory	1

Required Supporting Credits — 18 semester hours

<i>Mathematics</i>	
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
<i>Physics</i>	
PHYS 240 General Physics I	5
PHYS 241 General Physics II	5

Required Elective Credits — 4-5 semester hours

Select one Laboratory Course from the following:

CHEM 483 Experimental Biochemistry	1
CHEM 499 Seminar and Research in Chemistry	2

Select one Lecture Course from the following:

CHEM 481 General Biochemistry I	3
CHEM 500 Level Credits	3

General Education Credits, Specified — 7 semester hours

This program requires you to complete the following course(s) within the 40 hours of General Education.

Category 1b — Intermediate Composition

SCI 291 Scientific Writing	3
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Category 2 — Mathematics

MATH 131 Calculus and Analytic Geometry I	4
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Category 6 — Sciences and Mathematics

MATH 132, PHYS 240 and CHEM 111 or CHEM 114 required in this program, will fulfill this requirement.

Notes

Qualifying students may be eligible for a five-year program resulting in a B.A./M.A. degree. Consult your advisor early in your program for details.

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 221, MATH 335, STAT 150, PHYS 321 and PHYS 343.

Juniors and seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

Bachelor of Arts in Chemistry

Emphasis in Industrial Chemistry

Program Requirements

Required Chemistry core credits	24-26
Required Chemistry credits	11-13
Required supporting credits	10
General Education credits:	
9 credits already included in requirements above	
Specified	10
Remaining	21
Required minor with minimum credits	18
Elective credits	22-26
Total credits required for this degree	120

This emphasis offers training in chemistry, mathematics, physics and a minor area selected by the student. The course of study provides a solid foundation in chemistry and specific background knowledge about the chemical industry.

Students completing the degree emphasis can pursue a career in the chemical, medical, pharmaceutical or biotechnology industries; or in related government agencies. Career options include supervision, process evaluation, quality control, pilot scale operation, management and sales. Students considering graduate study in chemistry may be required to complete additional coursework in physical chemistry and/or mathematics depending on the entrance requirements of specific graduate schools.

Required Chemistry Core Credits — 24-26 semester hours

<i>Select one of the following groups:</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2

Required Chemistry Credits — 11-13 semester hours

CHEM 421 Instrumental Analysis	4
CHEM 443 Inorganic Chemistry Laboratory	1
CHEM 450 Survey of Physical Chemistry	4

Select one of the following:

CHEM 493 Special Topics in Chemistry (two courses)	4
CHEM 360 Environmental Chemistry	2

Required Supporting Credits — 10 semester hours

PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5

General Education, Specified — 10 semester hours

This program requires you to complete the following course(s) within the 40 hours of General Education.

Category 1b — Intermediate Composition

SCI 291 Scientific Writing	3
----------------------------------	---

Category 2 — Mathematics

MATH 131 Calculus and Analytic Geometry I	4
---	---

Category 5 — Social Science

ECON 103 Introduction to Economics: Macroeconomics	3
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Notes

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

A minor is required for this emphasis. Possible minors include business or economics for students interested in management, biology for students leaning toward biotechnology or English for students considering technical writing. Consult your advisor for additional coursework to complement this emphasis.

It is recommended that students consider electives in public speaking (SPCO 100/103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and 102). Additional elective coursework in chemistry, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 132, MATH 221, STAT 150 and PHYS 321.

Juniors and Seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

Bachelor of Arts in Chemistry Emphasis in Pre-Health

Program Requirements

Required Chemistry core credits	24-26
Required Chemistry credits	12
Required supporting credits	19
Required elective credits	10-11
General Education credits:	
9 credits already included in requirements above	
Specified	7
Remaining	24
Elective credits	21-24
Total credits required for this degree	120

This program offers training in chemistry, mathematics and physics with a broad base in biological sciences and biochemistry. It provides a foundation in chemistry and biological sciences for those students planning to pursue professional studies in dentistry, medicine, optometry, podiatry, pharmacy or veterinary medicine.

Students completing this degree emphasis will meet the prerequisites to the professional schools listed above. Acceptance into these schools is competitive and students should register with and be advised by the pre-health committee in the Chemistry department. Students completing this degree emphasis who wish to pursue graduate study in one of the areas of chemistry will be required to complete additional coursework in physical chemistry and/or mathematics depending on the entrance requirements of the specific graduate school.

Required Chemistry Core Credits — 24-26 semester hours

Select one of the following groups:

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2

Required Chemistry Credits — 12 semester hours

CHEM 450 Survey of Physical Chemistry	4
CHEM 481 General Biochemistry I	3
CHEM 482 General Biochemistry II	3
CHEM 483 Experimental Biochemistry I	1
CHEM 484 Experimental Biochemistry II	1

Required Supporting Credits — 19 semester hours

Biology

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5

Physics

PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5

Required Elective Credits — 10-11 semester hours

Biology credits (select two of the following):

ZOO 341 Human Anatomy	3
ZOO 350 Human Physiology	4
BIO 351 Microbiology	4
Select one course from the CS or STAT prefixes	3

General Education, Specified — 7 semester hours

This program requires you to complete the following course(s) within the 40 hours of General Education.

Category 1b — Intermediate Composition

SCI 291 Scientific Writing	3
----------------------------------	---

Category 2 — Mathematics

MATH 131 Calculus and Analytic Geometry I	4
---	---

Category 6 — Sciences and Mathematics

BIO 110, PHYS 220 and CHEM 111 or CHEM 114 required in this program, will fulfill this requirement.

Notes

Chemistry majors, minors and other well-qualified students are recommended to take CHEM 114 and CHEM 115.

It is recommended that students consider electives in public speaking (SPCO 100/103) and for those students planning to go to graduate school, a foreign language (GER 100 or GER 101 and 102). Additional elective coursework in chemistry, biology, mathematics, statistics and/or physics is desirable as time permits. Graduate level CHEM courses are recommended as well as MATH 221, MATH 335, STAT 150, PHYS 321 and PHYS 343.

Juniors and Seniors are expected to participate in the Department's undergraduate research program. All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

Bachelor of Arts in Chemistry Emphasis in Teaching (ACS Certified)

Program Requirements

Required Chemistry core credits	24-26
Required Chemistry credits	8
Required credits for ACS certification	5
Required credits for science licensure	23
General Education credits:	
9 credits included in requirements above	
Specified	4
Remaining	27
PTEP program	37-39
Total credits required for this degree	128-132

This program is designed to prepare students as secondary school chemistry teachers licensed in science by the Colorado Department of Education. In addition to a strong background in chemistry, students will receive training in biological sciences, physics, earth sciences and mathematics. Students receiving this degree can be certified by the American Chemical Society. See advisor for details.

Students graduating with this degree and licensure at the elementary/middle school level could become a teacher or science coordinator at an elementary or middle school. Students graduating with this degree emphasis will be well prepared to teach chemistry and other sciences in junior and senior high school. Students completing this program will be prepared to pursue graduate study in chemical education or science education.

The program will take four-five years to complete depending on high school background and the point in the educational career at which the program is entered.

Required Chemistry Core Credits — 24-26 semester hours

<i>Select one of the following groups:</i>	
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2

Required Chemistry Credits — 8 semester hours

CHED 495 Seminar in Teaching Chemistry	2
CHEM 360 Environmental Chemistry	2
CHEM 450 Survey of Physical Chemistry	4

Required Credits for ACS Certification — 5 semester hours

CHEM 421 Instrumental Analysis	4
CHEM 443 Inorganic Chemistry Laboratory	1

Required Credits for Science Licensure — 23 semester hours

<i>Biology</i>	
BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
<i>Earth Sciences</i>	
GEOL 201 Physical Geology	4
<i>Physics</i>	
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
<i>Secondary Licensure</i>	
SCED 441 Methods of Teaching Secondary School Science	3

General Education, Specified — 4 semester hours

This program requires you to complete the following courses within the 40 hours of General Education.

<i>Category 2 — Mathematics</i>	
MATH 131 Calculus and Analytical Geometry I	4
<i>Category 6 — Sciences and Mathematics</i>	
BIO 110, PHYS 220 and CHEM 111 or CHEM 114 required in this program, will fulfill this requirement.	

Notes

It is recommended that students have a fundamental background in computers. SCI 393 is recommended.

All students in the program must take an assessment examination before graduation. Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

Pre-Professional Studies — Health Sciences

Students interested in preparing for careers in the Health Sciences (Human Medicine including allopathic, osteopathic and podiatric medicine, dentistry, veterinary medicine, optometry, pharmacy and chiropractic for example) and those interested in various allied health sciences* (e.g., dental hygiene, physician's assistant, optometry assistant, veterinary assistant, physical therapy) should participate in this program. These students are encouraged to enroll in the seminar course, BIO 192, Careers in the Health Professions, to explore career options.

Professional studies in the health sciences have traditionally been built on a strong liberal arts foundation. Pre-professional studies that prepare students for professional schools are available at UNC. Advisors with knowledge about careers in the health sciences, requirements for admission to professional schools and UNC courses and degree programs assist students planning to apply for admission to professional schools. Competition for admission to these programs is keen and completion of a pre-professional program does not guarantee admission to the professional school. Academic performance, scores on selected examinations, results of interviews, personal characteristics and experiences are all taken into consideration. Special national aptitude or admissions tests are required by many of these programs. Special application processes are used by some of the programs. Pre-professional committee recommendations may be required. UNC's Pre-Professional Committee of faculty is dedicated to providing timely and informed advising to students interested in health-related careers.

Careful program planning is essential and students are encouraged to meet regularly with their pre-professional advisor.

Students will be encouraged to select courses that will meet the requirements of a degree that provides maximum flexibility in career choices. Professional schools have requirements that range from a minimum of two years of undergraduate studies to four years and a bachelor's degree. Although common requirements exist within areas, sufficient differences exist that wise students will work closely with their advisor to be certain that all program and degree requirements are being met.

At a minimum, allied health science programs will require a year of general biology, a year of general chemistry and a year of English composition. A second year of chemistry, additional biology, physics and college mathematics, as well as courses in social sciences and humanities are required in the health science areas.

Although no specific undergraduate major is required by professional schools, students in our program will be encouraged to select a major and work towards a degree. Most students elect a major from one of the biological or physical sciences. For information on the requirements for specific programs contact Dr. Tomasi at 970-351-2559.

* Nursing and Medical Technology are included in this group of careers, but since professional education in these careers is available at UNC they are not listed in this program. For more information about these programs consult the index of this Bulletin.

Master of Arts in Chemistry Emphasis in Education

Program Requirements

Complete the required credits specified here8-12
Complete program electives specified here18-22

This degree extends and builds upon the knowledge and skills learned at the undergraduate level and, through the science education component, develops skills necessary to become increasingly effective in the chemistry classroom.

Successful completion of this degree will enhance advancement opportunities in the education field and provide a teacher advanced training in content and pedagogy. The degree can also qualify persons to teach at the junior or community college level.

Admission

In addition to meeting the admission requirements of the Graduate School, the student should have completed chemistry courses comparable to those required in the B.A. degree in chemistry (teaching emphasis) including courses in organic, inorganic and analytical chemistry. If these requirements are not met, a candidate may be admitted to the program on a provisional basis.

Prerequisites

Qualifier Examinations — Upon full admittance into the program, each student must pass qualifying examinations in four of six areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry) or chemical education. Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of "B."

Required Credits — 8-12 semester hours

CHEM 600 Seminar in Chemistry2
CHED 682 Problems in Teaching Chemistry3

Master of Arts in Chemistry Emphasis in Research

Program Requirements

Complete the required credits specified here12
Complete program electives specified here18

The degree extends and builds upon the knowledge and skills learned at the undergraduate level and, through the research component, develops independence in the chemical laboratory and in dealing with the chemical literature. Candidates have the opportunity to work closely with faculty trained in biochemistry and in analytical, inorganic, physical and organic chemistry.

Successful completion of this degree will enhance chances for professional advancement and expand employment opportunities. Further education in a Ph.D. program in chemistry is also a possibility.

Admission

In addition to meeting the admission requirements of the Graduate School, the student should have completed a program equivalent to the Bachelor of Arts degree in Chemistry (ACS Certified) including courses in organic, inorganic, analytical (quantitative and instrumental analysis) and physical chemistry plus college mathematics through differential and integral calculus and one year of physics. If these prerequisites are not met, the candidate may be admitted to the program on a provisional basis.

Prerequisites

Students must complete one year of calculus-based, physical chemistry with laboratory if not previously taken. CHEM 551, 552, 453 and 454 may be taken to meet this requirement.

Qualifier Examinations

Upon full admittance into the program, each student must pass qualifying examinations in four of six areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry) or chemical education. Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be

Select one of the following:

CHEM 622 Directed Studies3
CHEM 695 Thesis Proposal1
CHEM 699 Thesis6

Note that students must meet a physical chemistry requirement if not previously taken. CHEM 551, 552, 453 and 454 may be taken to meet this requirement.

Elective Credits — 14 semester hours

CHEM 522 Advanced Analytical Chemistry3
CHEM 523 Chemical Spectroscopy3
CHEM 533 Organic Synthesis and Stereochemistry3
CHEM 534 Theory and Mechanisms of Organic Reactions3
CHEM 543 Organometallic Chemistry3
CHEM 556 Physical Chemistry of Atomic & Microscopic Systems3
CHEM 557 Physical Chemistry of Macroscopic Systems3
CHEM 560 Environmental Chemistry2
CHEM 581 General Biochemistry I4
CHEM 582 General Biochemistry II4
CHEM 590 Special Topics in Chemistry3

Electives — 4-8 semester hours

Courses may be taken with the approval of the candidate's graduate advisor in the natural sciences, mathematics, computer science, education, etc., as necessary to broaden the candidate's background. For students with limited experience in using computers, SCI 591, Computer Applications in Science and SCI 593, The Computer in the Science Classroom, are recommended.

Notes

Students completing a thesis must successfully defend the thesis.

All students must successfully complete comprehensive examinations in general chemistry and two other areas selected from chemical education and any subdiscipline of chemistry.

satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of "B."

Required Credits — 12 semester hours

CHEM 600 Seminar in Chemistry2
CHEM 695 Thesis Proposal1
CHEM 699 Thesis9

Elective Credits — 12 semester hours

CHEM 520 Theory and Use of Analytical Instruments1
CHEM 522 Advanced Analytical Chemistry3
CHEM 523 Chemical Spectroscopy3
CHEM 533 Organic Synthesis and Stereochemistry3
CHEM 534 Theory and Mechanisms of Organic Reactions3
CHEM 543 Organometallic Chemistry3
CHEM 556 Physical Chemistry of Atomic & Microscopic Systems3
CHEM 557 Physical Chemistry of Macroscopic Systems3
CHEM 560 Environmental Chemistry2
CHEM 581 General Biochemistry I4
CHEM 582 General Biochemistry II4
CHEM 586 Biochemical Techniques3
CHEM 587 Toxicology3
CHEM 590 Special Topics in Chemistry3
CHEM 622 Directed Studies1-3

General Electives — 6 semester hours

Electives to complete 30 credit hours with the approval of the major advisor are required for this program.

Note

In addition to course requirements, all students must successfully complete a defense of the thesis and must successfully complete comprehensive examinations in a major area of study (analytical, biological, inorganic, organic or physical chemistry).

Doctor of Philosophy in Chemical Education

Program Requirements

Complete the research component specified here	28
Complete the pedagogy component specified here	12
Complete chemistry component specified here	20
Complete program electives to total	64

This program prepares versatile, well-informed chemistry teachers by providing advanced training for chemistry teachers or chemists who wish to pursue educational opportunities beyond the master's degree. Students completing this program are qualified to work in the chemical education field at a variety of levels; such as, science coordinator or supervisor in the secondary school, chemistry instructor at two- and four-year colleges or chemistry educators at a university. At the professional level, program graduates are qualified to do fundamental research in chemical education and to direct chemistry research at the undergraduate level.

Admission

In addition to meeting the admission requirements of the Graduate School, students should have completed courses comparable to those listed below. If these requirements are not met, students may be provisionally admitted to the program. Deficiencies are to be removed early in the program.

- Mathematics: through multi-variable calculus
- Physics: one year of college physics
- Chemistry: one year each of general chemistry, organic chemistry and physical chemistry, one semester each of quantitative analysis, instrumental analysis and inorganic chemistry and sufficient chemistry electives to qualify for a major in chemistry
- The general, organic, physical and analytical chemistry courses each require an associated laboratory experience

General Requirements

Qualifier Examinations — Upon full admittance into the program, each student must pass qualifying examinations in four of six areas selected from chemistry content (analytical, biological, inorganic, organic or physical chemistry) or chemical education. Students will have two opportunities to pass each area exam. Qualifier examinations are scheduled during the week preceding the beginning of classes each semester. If an examination is failed, the requirement may be satisfied by completing designated undergraduate coursework in the appropriate subdiscipline with a minimum grade of "B."

Students entering the program with a master's degree are required to complete 64 credit hours. Students entering the program with a bachelor's degree are required to complete 94 credit hours.

Comprehensive Examinations — Students must pass written and oral comprehensive examinations in chemical education and in three of five chemistry content areas (analytical, biological, inorganic, organic or physical chemistry).

Research Component — minimum 28 hours

Required:

CHEM 600 Seminar	3
CHEM 793 Research Practicum	4
CHEM 797 Doctoral Proposal Research	4
CHEM 799 Doctoral Dissertation	12
SCED 694 Science Education Research	3
<i>Select one of the following sequences:</i>	
SRM 501 Applied Statistics I	4
and	
SRM 502 Applied Statistics II	4
SRM 611 Advanced Theory of Statistics I	4
and	
SRM 612 Advanced Theory of Statistics II	4
SRM 602 Statistical Methods I	3
and	
SRM 603 Statistical Methods II	3

Note that completion of CHEM 600 (3 hrs) and one of the statistics sequences (SRM 501/502, SRM 611/612 or SRM 602/603) fulfills the requirement for two research tools. SCED 694 fulfills the requirement for an advanced research course.

Chemistry Component — minimum 20 hours

CHEM 520 Theory and Use of Analytical Instruments	1
CHEM 522 Advanced Analytical Chemistry	3
CHEM 523 Chemical Spectroscopy	3
CHEM 533 Organic Synthesis and Stereochemistry	3
CHEM 534 Theory and Mechanisms of Organic Reactions	3
CHEM 543 Organometallic Chemistry	3
CHEM 551 Physical Chemistry I	4
CHEM 552 Physical Chemistry II	4
CHEM 555 Chemical Kinetics	3
CHEM 558 Chemical Thermodynamics	3
CHEM 559 Quantum Chemistry	3
CHEM 560 Environmental Chemistry	2
CHEM 581 General Biochemistry I	4
CHEM 582 General Biochemistry II	4
CHEM 586 Biochemical Techniques	3
CHEM 587 Toxicology	3
CHEM 590 Advanced Topics in Chemistry	3
CHEM 622 Directed Studies	1-3
CHEM 654 Statistical Thermodynamics	2

Pedagogy Component — minimum 12 hours

Required — 6 semester hours

CHEM 755 Supervised Practicum in College Teaching	3
EPSY 682 Cognition and Instruction	3
<i>Electives — 6 semester hours</i>	
CHED 682 Problems in Teaching Chemistry	3
SCED 680 Science Curricula in Secondary/College Settings	3
SCED 678 Science Education Seminar	2-3

Notes

One course in biochemistry is required if not previously taken.

Students must complete courses in a minimum of three areas of chemistry (analytical, biological, inorganic, organic or physical chemistry).

Students entering the program with a bachelor's degree must take a minimum of 32 hours in the Chemistry Component.

Candidates must select sufficient electives to complete their programs.

Additional electives in the Research, Pedagogy or Chemistry Components may be selected; electives in supporting sciences, mathematics, computer science and education are also recommended. All electives will be selected in consultation with the candidate's graduate committee.

Research Requirements — Candidates must demonstrate competence in the research aspects of both basic chemistry and chemical education.

Students entering the program with a bachelor's degree are required to complete original research projects in chemistry and chemical education. One project must be equivalent to a master's project and written in thesis format and the other will be written and defended as the candidate's doctoral dissertation.

Students who have written and defended a thesis as part of a master's degree, the thesis, if approved by the candidate's graduate committee, will substitute for the appropriate research requirement.

Candidates must write a scholarly paper and have it accepted for publication in a refereed journal as a requirement for this degree.

Bachelor of Arts in Earth Sciences

Emphasis in General Earth Sciences

Program Requirements

Required Earth Sciences credits	30-40
Required supporting mathematics and science credits	20-30
General Education credits: 7 credits already included in above requirements	
Remaining	33
Elective credits	27
Total credits required for this degree	120

Earth Sciences includes astronomy, geology, meteorology and oceanography.

The General Earth Sciences Program provides a multidisciplinary background in the earth sciences, with opportunity to develop a sequence of courses, including both earth science and supporting science and mathematics, which best serve individual interests and career goals. It is intended for students who have an interest in environmental issues, wish to pursue interests in oceanography or astronomy, desire a comprehensive understanding of their physical environment, or who plan to pursue careers in fields where a multidisciplinary background in the earth sciences is desirable, such as environmental or resource law, environmental monitoring, pre-secondary teaching, and regional planning. A departmental advisor will work closely with each student to ensure that the program meets individual needs.

Earth Science Credits — 30-40 semester hours.

Must be selected from courses with AST, ESCI, GEOL, MET or OCN prefixes that may be counted for earth sciences majors. At least two courses must be taken from each of two of the earth science disciplines (AST, GEOL, MET, OCN).

Supporting Sciences, Mathematics, and Computer Science Electives — 20-30 semester hours

Supporting science, mathematics and computer science course offerings selected from courses that have been approved for the major by the department. Electives must include at least 3 credit hours of mathematics coursework.

The following program is recommended for students, including those who plan to be elementary or middle school teachers, who wish to obtain a broad background in the earth sciences and the supporting sciences and mathematics.

Required Earth Science Credits — 30-40 semester hours

Core Credits — 29 semester hours

AST 301 Classical Astronomy	3
AST 302 Modern Astronomy	3
GEOL 201 Physical Geology	4
GEOL 202 Historical Geology	4
MET 205 General Meteorology	4
MET 421 Climatology	3
ESCI 450 Strategies in Teaching Earth Science	1
OCN 301 Physical and Chemical Oceanography	4
OCN 302 Geological and Biological Oceanography	4

Elective Earth Science Credits — 1-11 semester hours (selected in consultation with advisor)

ESCI 265 Earth Science Concepts for Elementary Teachers	3
ESCI 497 Undergraduate Research	1-6
GEOL 330 Earth Materials	3
GEOL 340 Paleontology	4
GEOL 390 Colorado Geology	3
GEOL 460 Geomorphology	3
GEOL 464 Glacial and Quaternary Geology	3
MET 306 Dynamic Meteorology	3
MET 360 Physical Meteorology	3

Supporting Mathematics and Science Credits — 20-30 semester hours

(selected in consultation with advisor)

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 265 Biological Concepts for Elementary Teachers	3
BIO 380 Aquatic Biology	4
BIO 460 Ecology	4
CG 105 Personal Computer Applications	3
CHEM 103 Introductory Chemistry	3
CHEM 108 Fundamentals of General and Organic Chemistry	5
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
ENST 225 Energy and the Environment	3
ENST 235 Chemistry and the Environment	2
ENST 255 Atmospheric Environment of Humans	2
ENST 265 Conservation of Natural Resources	2
MATH 124 College Algebra	4
MATH 125 Trigonometry	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 181 Fundamentals of Mathematics I	3
MATH 182 Fundamentals of Mathematics II	3
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
PHYS 321 Elementary Modern Physics	3
SCI 265 Physical Science Concepts for Elementary Teachers	4
SCI 391 Computer Applications in Science	2

Notes

The course of study for this major, including both required and elective courses, must total at least 60 credit hours and must be developed in consultation with and be approved by the student's departmental advisor.

At least one half of the credit hours in AST, ESCI, GEOL, MET and OCN courses must be numbered 300 or above. No more than 8 credit hours of AST, ESCI, GEOL, MET and OCN courses numbered below 200 may be counted toward the major.

Science and mathematics courses approved for General Education that are taken as part of this major may also be used to satisfy General Education requirements.

Bachelor of Arts in Earth Sciences Emphasis in Geology

Program Requirements	
Required Geology credits	39
Required supporting credits	35
Elective Geology credits	3
General Education credits:	
7 credits already included in above requirements	
Specified	4
Remaining	29
Elective credits	12
Total credits required for this degree	120

The science of geology explores the physical makeup of the earth, the processes that shape it and the history of its development. This program provides a broad background in geology and emphasizes the study of geology in the field and in the laboratory.

Graduates of the geology program will be prepared for entry-level positions as geologists in the petroleum and mining industries, in local, state and federal governmental agencies and in a variety of engineering and geological consulting firms. The program also provides the background necessary for admission to graduate programs in geology and related fields.

Required Geology Credits — 39 semester hours	
GEOL 201 Physical Geology	4
GEOL 202 Historical Geology	4
GEOL 320 Mineralogy	4
GEOL 340 Paleontology	4
GEOL 421 Optical Mineralogy and Petrography	4
GEOL 450 Sedimentology and Stratigraphy	4
GEOL 460 Geomorphology	3
GEOL 470 Structural Geology	4
GEOL 481 Geologic Field Techniques	2
GEOL 482 Geology Field Camp	6

Bachelor of Arts in Earth Sciences Emphasis in Meteorology

Program Requirements	
Required Meteorology credits	29
Elective Meteorology credits	6
Required supporting credits	30
General Education credits:	
10 credits already included in above requirements	
Remaining	30
Elective credits	25
Total credits required for this degree	120

The science of meteorology seeks to understand the atmosphere and its phenomena by considering the forces that act on it, the processes that determine its behavior and the interaction between it and the earth beneath. This program provides a broad background in meteorology and stresses practical interpretation of weather data and the importance of meteorology to many aspects of human endeavor.

Graduates of the meteorology program will be prepared for entry-level positions as meteorologists with government agencies and private companies, as weather forecasters with the United States Air Force and as team members with firms concerned with environmental monitoring. Meteorology is also an excellent major for individuals planning careers in either civilian or military aviation. The program also provides the background necessary for admission to graduate programs in the atmospheric sciences.

Required Meteorology Credits — 30 semester hours	
MET 205 General Meteorology	4
MET 306 Dynamic Meteorology I	3
MET 315 Meteorological Instruments and Codes	2
MET 360 Physical Meteorology	3
MET 407 Dynamic Meteorology II	4
MET 421 Climatology	3

Required Supporting Credits — 35 semester hours	
BIO 111 Survey of Organismal Biology	5
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
PHYS 220 Introduction to Physics I	5
PHYS 221 Introduction to Physics II	5
Note that PHYS 240 and PHYS 241 may be taken in lieu of PHYS 220 and PHYS 221. CHEM 114 and CHEM 115 may be taken in lieu of CHEM 111 and CHEM 112.	

Elective Geology Credits — 3 semester hours
Electives must be selected from courses with a GEOL prefix that are open to majors.

General Education Credits, Specified — 4 semester hours	
<i>Category 2 — Mathematics</i>	
MATH 124 College Algebra	4

Notes
Science and mathematics courses approved for General Education that are taken as part of the major may also be used to satisfy General Education requirements.

A 2.0 grade point average in the major is required for graduation.

MET 441 Synoptic Meteorology	3
MET 442 Synoptic Meteorology Laboratory	3
OCN 301 Physical and Chemical Oceanography	4

Elective Meteorology Credits — 6 semester hours selected from the following:	
MET 465 Radar Meteorology	3
MET 470 Satellite Meteorology	3
MET 536 Biometeorology	3
MET 595 Special Topics in Meteorology	1-4
Electives must be selected with the approval of the student's advisor.	

Required Supporting Credits — 30 semester hours	
CS 100 Structured Analysis, Design and Programming	3
CS 150 Software Development	1
CHEM 111 Principles of Chemistry I	5
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
STAT 150 Introduction to Statistical Analysis	3
Note that CHEM 114 may be taken in lieu of CHEM 111.	

Notes
A 2.0 grade point average in the major is required for graduation.

Science and mathematics courses approved for General Education that are taken as part of the major may also be used to satisfy General Education requirements.

Federal government requirements for employment as meteorologists may require additional math courses.

Bachelor of Arts in Earth Sciences

Emphasis in Secondary Teaching

Program Requirements

Required Earth Sciences credits	33
Required supporting credits	35-36
General Education credits:	
7 credits already included in above requirements	
Remaining	33
PTEP Program	37-40
Total credits required for this degree	138-142

The coursework and experiences in this major are designed to provide the student with a broad background of the four earth science disciplines (astronomy, geology, meteorology and oceanography) and supporting sciences, including biology, chemistry, physics and mathematics.

Graduates of this program are prepared to teach earth science in grades 7-12. Graduates will have satisfied all the requirements to receive Secondary Science/Earth Science Licensure from the Colorado Department of Education.

Required Earth Sciences Credits — 33 semester hours

Course selection may vary, depending upon the educational background of the student, with approval of the advisor. The following courses are recommended:

AST 301 Classical Astronomy	3
AST 302 Modern Astronomy	3
ESCI 450 Strategies in Teaching Earth Science	1
GEOL 201 Physical Geology	4
GEOL 202 Historical Geology	4
GEOL 390 Colorado Geology	3
MET 205 General Meteorology	4
MET 421 Climatology	3
OCN 301 Physical and Chemical Oceanography	4
OCN 302 Geological and Biological Oceanography	4

Required Supporting Credits — 35-36 semester hours

Math and science support courses, required to meet CDE Licensure in Secondary Science, are to be selected in consultation with the major advisor. The following courses are recommended:

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
MATH 131 Calculus and Analytic Geometry	4
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
SCI 391 Computer Applications in Science	2
or	
CG 105 Personal Computer Applications	3

Note that some of the required support courses in Biology, Chemistry and Physics will apply toward General Education Science requirement.

Notes

PTEP is required for this major.

As part of their professional teacher education program students must take SCED 441 Methods of Teaching Secondary School Science concurrent with STEP 363, EDRD 324, EDSE 360 and ET 301.

A grade point average of 2.5 in the major courses is required to receive departmental approval for admission to the Professional Teacher Education Program, for eligibility to student teach, and for graduation.

Master of Arts in Earth Sciences

Program Requirements

Complete the required credits specified here8-16
 Complete program electives specified here14-22

This program is for students who wish to broaden or deepen their backgrounds in the earth science disciplines (astronomy, geology, meteorology and oceanography) and develop their research skills. It serves individuals who are or intend to become secondary school or community college earth science teachers. It is also appropriate for elementary and middle school teachers, for students pursuing careers in allied fields that require a multidisciplinary background in the earth sciences and for individuals wishing to explore the earth sciences as a second career.

The multidisciplinary structure of the department affords each student the opportunity to develop a sequence of courses that complements and builds upon his or her previous education and experience, whether in the earth sciences or in other disciplines. The program provides both a thesis and a non-thesis option. Typically, students seeking a focused program emphasizing research skills elect the thesis option, and students seeking a broad, multidisciplinary curriculum emphasizing content will elect the non-thesis option. In consultation with the student's graduate committee, each student will select the appropriate option and design a curriculum for his or her particular educational and career objectives.

Thesis Option Required Credits — 12-16 hours

ESCI 599 Seminar in Earth Sciences — minimum of2
 ESCI 600 Introduction to Earth Science Research2
 ESCI 695 Special Topics in Earth Science2
 ESCI 699 Thesis6-10

Thesis Option Elective Credits — 14-18 hours

Courses with AST, ESCI, GEOL, MET, OCN and SCED prefixes, selected from the list below.

Non-Thesis Option Required Credits — 8-12 hours

ESCI 599 Seminar in Earth Sciences — minimum of2
 ESCI 600 Introduction to Earth Science Research2
 ESCI 695 Special Topics in Earth Science2
 ESCI 697 Graduate Research2-6

Non-Thesis Option Elective Credits — 18-22 hours

Courses with AST, ESCI, GEOL, MET, OCN and SCED prefixes, selected from the list below:

AST 500 Survey of Astronomy3
 AST 595 Special Topics in Astronomy1-4
 AST 622 Directed Studies1-4

ESCI 550 Strategies in Teaching Earth Science	1
ESCI 584 Earth Science Field Experience	1-15
GEOL 510 Groundwater Geology	2
GEOL 521 Optical Mineralogy and Petrography	4
GEOL 525 Economic Geology	3
GEOL 532 Igneous and Metamorphic Petrology	2
GEOL 533 Sedimentary Petrology	2
GEOL 535 Tectonics	2
GEOL 540 Paleontology	4
GEOL 550 Sedimentology and Stratigraphy	4
GEOL 560 Geomorphology	3
GEOL 564 Glacial and Quaternary Geology	3
GEOL 567 Volcanic Geology	3
GEOL 570 Structural Geology	4
GEOL 581 Geologic Field Techniques	2
GEOL 582 Geology Field Camp	6
GEOL 590 Rocky Mountain Geology Seminar	2
GEOL 595 Special Topics in Geology	1-4
GEOL 622 Directed Studies	1-4
MET 500 Survey of Meteorology	3
MET 507 Dynamic Meteorology II	4
MET 521 Climatology	3
MET 536 Biometeorology	3
MET 541 Synoptic Meteorology	3
MET 542 Synoptic Meteorology Laboratory	3
MET 570 Satellite Meteorology	3
MET 595 Special Topics in Meteorology	1-4
MET 622 Directed Studies	1-4
OCN 500 Survey of Oceanography	3
OCN 595 Special Topics in Oceanography	1-4
OCN 622 Directed Studies	1-4
SCED 671 Elementary and Middle School Science Curriculum	2
SCED 678 Science Education Seminar	1-2
SCED 680 Science Curricula in Secondary/College Settings	3

Note that other electives, including courses in supporting sciences, mathematics and science pedagogy, may be included with approval of the student's graduate studies committee.

Notes

Students must complete all Graduate School requirements as described elsewhere in this Bulletin.

ESCI 599, a one semester hour course, must be taken every semester the student is in residence at UNC.

Both written and oral comprehensive examinations are required.

Bachelor of Arts in Economics

Program Requirements

Required Economics credits	32
Required supporting credits	15-18
Required elective credits	12
General Education credits:	
3 credits already included in above requirements	
Remaining	37
Elective credits	19-21
Total credits required for this degree	120

Economics majors and minors learn the traditional tools and concepts of economics, theories and quantitative procedures applicable to economics and related disciplines and techniques and methodologies employed by economic practitioners. The department concentrates on teaching core courses commonly taught at major universities and requires students to complete supporting courses in mathematics, statistics and information systems.

The goal of the department is to graduate students who are highly qualified to pursue careers in industry and government service or who are capable of pursuing graduate study in economics or business. Economists work with government and industry information, quantitative data, theories, models, graphics and computers, especially microcomputers. For students planning to teach economics at the university level, a graduate school degree is necessary.

Required Economics Credits — 32 semester hours

ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
ECON 280 Money and Banking	3
ECON 303 Intermediate Macroeconomics	3
ECON 305 Intermediate Microeconomics	3
ECON 345 International Trade	3
ECON 400 Managerial Economics	3
ECON 402 Contemporary Economic Problems	3
ECON 452 Introduction to Econometrics	4
ECON 470 History of Economic Thought	3
ECON 499 Assessment Review	1

Required Supporting Credits — 15-18 semester hours

<i>Mathematics Credits — 6-8 semester hours (select one group, see notes)</i>	
MATH 124 College Algebra	4
MATH 131 Calculus and Analytic Geometry I	4
or	
MATH 175 Topics in Finite Mathematics	3
MATH 176 Topics in Calculus	3
<i>Statistics Credits — 6-7 semester hours</i>	
BACS 291 Business Statistics I	3
BACS 390 Business Statistics II	3
or	
STAT 311 Basic Statistical Methods	4
<i>Computer Proficiency Credits — 3 semester hours</i>	
BA 101 Business Computing	3

Required Elective Credits — 12 semester hours

Eligible electives include all ECON prefix courses, ENST 335 and MIND 286.

Recommended Electives — not required

BAAC 329 Introduction to Income Tax	3
BAFN 231 Legal Environment of Business	3
BAFN 340 Principles of Risk and Insurance	3
BAFN 370 Business Finance	3
BAFN 372 Introduction to Real Estate	3
BAMG 354 Organizational Behavior	3
BAMK 360 Marketing	3
BAMK 361 Consumer Behavior	3
BAMK 368 Market Analysis and Research I	3

Notes

Students planning to attend Graduate School should take the MATH 124 - MATH 131 sequence.

To qualify for graduation, economics majors must achieve a minimum 2.00 GPA in all economics (ECON) courses taken at the University of Northern Colorado.

For purposes of required electives, minimum grades and calculation of minimum GPA, MIND 286 and ENST 335 will be counted as ECON courses.

Bachelor of Arts in Economics Emphasis in Business Economics

Program Requirements

Required Economics credits	25
Required supporting credits	16
Required elective credits	9
General Education credits:	
3 credits already included in above requirements	
Remaining	37
Required Business Administration Minor (33-46)	
9 credits already included in required supporting credits	
Remaining required credits	24
Total credits required for this degree	120-121

This program offers training in economics, mathematics, statistics and information systems with a minor in Business Administration. It provides a sound foundation in the techniques and methodologies employed by economic practitioners as well as the application of economics to the business sector.

Students completing this degree emphasis can pursue a career in banking, industry, small business or related fields. In addition, students planning to pursue a graduate degree would be well equipped to pursue either an M.B.A. or a graduate degree in Economics.

Required Economic Credits — 25 semester hours

ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
ECON 280 Money and Banking	3

ECON 303 Intermediate Macroeconomics	3
ECON 305 Intermediate Microeconomics	3
ECON 345 International Trade	3
ECON 400 Managerial Economics	3
ECON 453 Business and Economic Forecasting	3
ECON 499 Assessment Review	1

Required Supporting Credits — 16 semester hours

MATH 175 Topics in Finite Mathematics	3
MATH 176 Topics Calculus	3
BA 101 Business Computing	3
BACS 291 Business Statistics I	3
STAT 311 Basic Statistical Methods	4

Required Elective Credits — 9 semester hours

ECON 250 Comparative Economic Systems	3
ECON 277 Industrial Organization	3
ECON 315 Labor/Management Economics	3
ECON 341 Public Finance	3
ECON 346 International Finance	3
ECON 360 Economics of Growth and Development	3
ECON 402 Contemporary Economic Problems	3
ECON 455 Regional Theory and Methods	3
ENST 335 Environmental and Resource Economics	3
MIND 286 Value Issues in Political Economy	3

Bachelor of Arts in English

Emphasis in Language Arts for Elementary and Middle School Teaching

Program Requirements	
Required English credits	39
Required elective credits	3
General Education credits:	
Regular	40
PTEP program	37-39
Required licensure credits	21
Total credits required for this degree	140-142

The language arts emphasis offers a balanced approach to literature, language, writing and oral communication. The program affords future teachers a broad approach to literature and its history, courses in writing and language that enable our graduates to "practice what they teach," and training in communication skills that are especially appropriate to the classroom.

Graduates of the program will be prepared to enter the teaching profession in grades 1-6 (with elementary licensure) and grades 5-9 (with middle school licensure) and to accept teaching assignments to a wide range of courses in language arts. In addition to preparing well-qualified teachers, the English major is excellent preparation for any profession or occupation that stresses language usage.

Required English Credits — 39 semester hours

EDRD 414 Literature for Children, Adolescents and Young Adults	3
ENG 131 Introduction to Literature	3
ENG 219 Traditional and Modern Grammars	3
ENG 238 Introduction to Folklore	3
ENG 240 Introduction to Creative Writing	3
ENG 260 Masterpieces of English Literature	3

Bachelor of Arts in English

Emphasis in Liberal Arts

Program Requirements	
Required English credits	30
Required elective credits	9
General Education credits	40
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

Ours is truly a language-dependent society. From corporate brochures to poetry, from television scripts to newspapers, we depend on our abilities to read and think critically, to communicate intelligently and effectively. The core requirements of the English major afford students a broad coverage of the field. Judicious planning with the student's advisor should provide additional program focus through course clusters in literature, writing and/or language study.

Graduates of this program will be prepared to enter a variety of professional and graduate level programs, including law, theology, medicine (with appropriate science and mathematics preparation), library science, communications, media and business. The English major is excellent preparation for any profession or occupation that stresses language usage, such as writing and teaching-related fields.

ENG 261 Masterpieces of American Literature	3
ENG 319 Advanced Expository Techniques	3
ENG 414 Greek and Comparative Mythology	3
ENG 419 Language and the History of English	3
SPCO 111 Oral Interpretation	3
SPCO 323 Intercultural Communication	3
SPCO 330 Small Group Communication	3
Note that ENG 430 with subtitle of "The Folktale" or "Native American Literature" may be taken in place of ENG 238.	

Required Elective Credits — 3 semester hours

Notes

English majors pursuing teacher licensure must complete Professional Teacher Education (PTEP) requirements listed separately in this Bulletin.

No English major may be admitted to the PTEP program until he or she has completed at least two courses in the major at the University of Northern Colorado and achieved a minimum grade point average of 2.5 in the major.

Before being permitted to apply for student teaching, an English major with a language arts emphasis must have successfully completed EDFE 270 or 370, must have completed at least 30 hours in the major with no "D's" and must have at least a 2.75 grade point average in those courses taken at UNC. Any course in the major for which a student received a "D" grade must have been repeated for a "C" or better before the student may apply for student teaching.

Qualified students may be exempted by examination from ENG 131.

Required English Credits — 30 semester hours

<i>Lower Division Core</i>	
ENG 131 Introduction to Literature	3
ENG 219 Traditional and Modern Grammars	3
ENG 260 Masterpieces of English Literature	3
ENG 261 Masterpieces of American Literature	3
ENG 262 Masterpieces of World Literature	3
<i>Upper Division Core</i>	
ENG 319 Advanced Expository Techniques	3
ENG 419 Language and the History of English	3
Period courses (ENG 351-372); two from English and one from American Literature	9

Required Elective Credits — 9 semester hours

ENG 122, 123, 223, 225 and 227 may NOT be counted toward the English major; all other courses with an ENG prefix may be counted for elective credit. At least one elective course MUST be taken at the 400-level.

Note

Qualified students may be exempted by examination from ENG 131.

Bachelor of Arts in English Emphasis in Secondary Teaching

Program Requirements

Required English credits	33
Required elective credits	6
General Education credits	40
PTEP program	37-39
Required credits for secondary licensure	9
Required minor with minimum credits	18
Total credits required for this degree	143-145

The English major with a secondary teaching emphasis at UNC is unique for its balanced approach to literature, language, writing and pedagogy. The program affords future teachers broad coverage of literary history, special topics in literature, genre studies and the like; courses in pedagogy, language and writing provide special training that enables our graduates to "practice what they teach."

Graduates of the program will be prepared to enter the teaching profession in grades 1-6 (with elementary licensure), grades 5-9 (with middle school licensure) and grades 7-12 (with secondary licensure) and to accept teaching assignments in a wide range of courses in writing and literature. Further, the bachelor's program will provide a solid background for future professional and graduate-level work in areas such as law, theology, medicine (with appropriate science and mathematics preparation), library science, communications, media and business. In addition to preparing well-qualified teachers, the English major is excellent preparation for any profession or occupation that stresses language usage, such as writing.

Required English Credits — 33 semester hours

Lower Division Courses

ENG 131 Introduction to Literature	3
ENG 219 Traditional and Modern Grammars	3
ENG 240 Introduction to Creative Writing	3
ENG 260 Masterpieces of English Literature	3
ENG 261 Masterpieces of American Literature	3
ENG 262 Masterpieces of World Literature	3

Upper Division Courses

ENG 319 Advanced Expository Techniques	3
ENG 419 Language and the History of English	3
Period courses (ENG 351-372); two from English and one from American Literature	9

Required Elective Credits — 6 semester hours

ENG 122, 123, 223, 225 and 227 may NOT be counted toward the English major. All other courses with an ENG prefix may be counted for elective credit. Majors preparing to teach may elect from either EED or ENG courses. At least one elective course must be taken at the 400-level.

Students may complete this major to be certified in elementary or middle school, as well as secondary teaching by completing the appropriate licensure program. Those wishing to be certified in secondary education must also complete a minor.

Required Credits for Secondary Licensure — 9 semester hours

Additionally, those students seeking secondary licensure must complete the following courses:

EED 341 Methods and Materials for Teaching Language and Composition in the Secondary Schools	3
(Take concurrently with STEP 363 Clinical Experience: Secondary)	
EED 402 Methods and Materials for Teaching Literature in the Secondary Schools	3
EED 406 Literature for Children and Adolescents	3

Notes

English majors pursuing teaching licensure must complete PTEP requirements listed separately in this Bulletin.

Qualified students may be exempted by examination from ENG 131.

No English major may be admitted to the PTEP program until he or she has completed at least two courses in the major at the University of Northern Colorado and achieved a minimum grade point average of 3.0 in the major.

Master of Arts in English

Program Requirements

Complete the required course specified here	3
Complete program electives specified here	33

The master's degree program provides focused, in-depth study of literature, practical experiences in literary criticism and research and opportunities for advanced levels of writing. Judicious selection of courses under the guidance of the student's advisor may provide additional focus to the program through special course clusters in areas such as pedagogy, literary theory, or specific periods of interests.

Graduates of the program will be prepared to enter a wide range of fields and/or to pursue additional advanced levels of study such as the Ph.D. in English. The program enables teachers currently in the field to develop special areas of interest, to pursue these in depth, and to enhance their skills in teaching, research, and writing. In addition, graduates can pursue professional study in law, theology, medicine (with appropriate science and mathematics preparation), library science, communications, media, and business. The M.A. in English is excellent preparation for any profession or occupation that stresses language usage, such as writing.

Required Credits — 3 semester hours

ENG 600 Introduction to Graduate Study	3
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Required Elective Credits — 33 semester hours

A minimum of six courses must be selected from ENG 600-level offerings 27

Additionally, all students must choose one of the following options:

- a traditional thesis;
- a creative project, such as a novel or a collection of poetry;
- an additional six semester hours (two ENG 600-level seminars).

The thesis or creative projects may be written under ENG 699 for 6 semester hours credit

Notes

To increase the flexibility of this program for teachers and to provide further work to help them improve their instructional skills, a block of pedagogical coursework (6 semester hours) may be taken. The student and graduate advisor will plan according to individual needs.

Completion of a Master of Arts degree in English does not meet all the College of Education PTEP requirements for licensure in English. Students must consult their departmental advisors and/or the College of Education PTEP office if they are interested in elementary or secondary licensure.

Candidates must take a poetry explication examination during the first semester of enrollment; if necessary, this exam may be retaken until the student's performance is satisfactory.

All master's candidates must take a written, comprehensive examination.

Minor in Environmental Studies

Program Requirements

Required Environmental Studies credits	6
Required elective credits	16
Total credits required for this minor	22

The environmental studies minor enhances student ability to help find solutions to the growing environmental problems facing humanity caused by increasing human demands on the finite physical resources of the planet. This focus has two branches: 1) increasing the knowledge base about the natural resource and human components of environmental issues, which include population growth; pollution of land, air and water; urban and rural land use; food production possibilities; existing and alternative energy technologies; wilderness preservation; and species extinction; 2) developing an understanding of the methods and paradigms of various disciplines from the natural sciences, the social sciences and the humanities and their potential contributions and limitations in the context of environmental problems. Thus, students develop insights and problem-solving skills not as readily available within single disciplines.

The minor is useful for students majoring in disciplines that contribute to the solution of environmental problems. Students acquire a broad perspective of the nature of environmental problems and their possible solutions. The minor facilitates cooperative, interdisciplinary problem-solving in subsequent employment or graduate study.

Employment opportunities are diverse and are shaped by the student's major. Environmental jobs can be laboratory, people, writing or outdoor-oriented. Typical employers include resource development companies, environmental consulting firms, government agencies, educational facilities (public and private, traditional and innovative) and environmental groups. There are also self-employment opportunities.

Required Environmental Studies Credits — 6 semester hours

ENST 100 Introduction to Environmental Studies	3
ENST 405 Senior Seminar	3

Required Elective Credits — 16 semester hours

<i>Social Processes (select two of the following):</i>	
ENST 205 Environment, Politics and Law	2
ENST 215 Human Behavior and Environment	2
ENST 247 Politics of the Nuclear Age	2
ENST 335 Environmental and Resource Economics	3
GEOG 315 Resource Management	3
<i>Physical Resource Science (select two of the following):</i>	
ENST 225 Energy and the Environment	3
ENST 235 Chemistry and the Environment	2
ENST 245 Nuclear, Solar and Alternative Power	3
ENST 255 Atmospheric Environment of Humans	2
ENST 265 Conservation of Natural Resources	2
ENST 355 Introduction to Environmental Health	3
<i>Sensory Perception (select one of the following):</i>	
ENST 375 Literature and the Environment	3
ENST 385 Art and the Environment	2
<i>Special Problems</i>	
ENST 422 Directed Studies	1-3
ENST 492 Internship in Environmental Studies	4-15
Take courses appropriate to the specific minor	

Notes

At least 8 of the 16 elective hours must be taken at or above the 300-level.

At least 15 hours of the minor must be taken as formal coursework and should be completed before enrollment in the internship (if elected) and the senior seminar.

The type of internship or particular elective courses are determined jointly by the coordinator and student in the light of the student's goals.

Bachelor of Arts in French

Emphasis in Liberal Arts

Program Requirements

Required French credits	31
Required elective credits	3
General Education credits	40
Required minor with minimum credits	18
Elective credits	28
Total credits required for this degree	120

The French Liberal Arts Major stresses acquisition of the four language skills (listening, speaking, reading, writing) through performance-oriented classes at all levels, conducted in French. Students develop skills in critical thinking as they acquire familiarity with francophone literature and civilization. The department's extracurricular activities encourage cultural awareness while developing leadership, organizational and promotional abilities.

French Liberal Arts majors may choose to pursue graduate study in French or, having combined their language study with other fields such as business, political science, international trade and relations, history, fine arts and others, can become involved in careers in international business, world affairs, social work or the arts.

Required French Credits — 31 semester hours

FR 201 Intermediate French I	3
FR 202 Intermediate French II	3
FR 301 French Conversation and Composition I	3
FR 302 French Conversation and Composition II	3
FR 311 French Civilization & Literature Survey I	3
FR 312 French Civilization & Literature Survey II	3
FR 407 French for Oral Proficiency	3
FR 475 Seminar in French Literature	2
Advanced Literature Credits	8

Required Elective Credits — 3 semester hours (minimum)

FR 150 Practicum in Contemporary Culture	1
FR 300 Intermediate French Readings	1-3
FR 350 Practicum in Teaching French	2
FR 401 intensive French	4
FR 402 Contemporary Life in France	3
FR 403 France of the Ancient Regime	4
FR 404 Modern France	4
FR 405 Business French	3
FR 450 Studies in French Literature	3

Notes

All work to be counted toward the B.A. in French, Liberal Arts emphasis, must be beyond the first year level.

Advising and advisor's signature required before registration each semester.

Students must demonstrate competency in certain areas of language activity: Oral and written proficiency in French, ability to apply one's knowledge of the French language environment. Consult department advisor.

To graduate with French Liberal Arts major, the student must have a 2.5 grade point average in those courses that count toward the major and that were taken at UNC.

Students must complete a minor approved by the department.

Bachelor of Arts in French Emphasis in Teaching

Program Requirements

Required French credits	34
Required elective credits (minimum)	3
General Education credits:	
3 credits already included in above requirements	
Remaining	37
PTEP program	37-39
Required minor with minimum hours	18
Total credits required for this degree	129-131

In preparing majors for careers in secondary school teaching of French, this program stresses acquisition of the four language skills (listening, speaking, reading, writing) through performance-oriented classes at all levels, conducted in French. Students develop skills in critical thinking as they acquire familiarity with francophone literature and civilization. The department's extracurricular activities encourage cultural awareness while developing leadership and organizational and promotional abilities necessary to foreign language teaching. Pedagogical skills are developed through numerous clinical teaching experiences offered within the department as well as through Professional Teacher Education.

Completion of the French teaching major qualifies the student for State of Colorado Licensure to teach French in the secondary school and for graduate study in French. Training includes development of the four language skills in French, knowledge of francophone culture and literature and development of pedagogical and organizational skills expected in the French teaching profession. Also, students who combine their language study with other fields such as business, political science, international trade and relations, history or fine arts can pursue careers in international business, world affairs, social work or the arts.

Required French Credits — 34 semester hours

FR 201 Intermediate French I	3
FR 202 Intermediate French II	3
FR 301 French Conversation and Composition I	3
FR 302 French Conversation and Composition II	3
FR 311 French Civilization & Literature Survey I	3
FR 312 French Civilization & Literature Survey II	3
FR 350 Practicum in Teaching French	2
FR 407 French for Oral Proficiency	3
FL 341 Methods of Teaching in the Secondary School	3
Advanced Literature Credits	8

Master of Arts in Foreign Languages Emphasis in French Teaching

Program Requirements

Complete the required credit specified here	10
Complete the program electives specified here	20

The program is designed for secondary teachers of French who desire further preparation at the graduate level.

The program concentrates on the development of high-level functional proficiency in the four language skills and provides in-depth understanding of the cultural and literary achievements of French-speaking societies. The most recent developments in foreign language methodologies will be studied and researched.

Admission

Admission to this program has been suspended until further notice. Consult department chair.

In addition to meeting the standard Graduate School admissions requirements, applicants to the master's program in Foreign Language Teaching — French must possess a B.A. in French or the equivalent and must have completed one year of teaching experience.

Students may complete the M.A. degree in summers only or during the academic year only or by combining summer work with regular academic year program offerings.

Required Elective Credits — 3 semester hours (minimum)

FR 150 Practicum in Contemporary Culture	1
FR 300 Intermediate French Readings	1-3
FR 350 Practicum in Teaching French	2
FR 401 Intensive French	4
FR 402 Contemporary Life in France	3
FR 403 France of the Ancient Regime	4
FR 404 Modern France	4
FR 405 Business French	3
FR 450 Studies in French Literature	3
FR 475 Seminar in French Literature	2

Notes

All work to be counted toward the B.A. in French, Teaching emphasis, must be beyond the first year level.

Advising and advisor's signature required before registration each semester.

Students must demonstrate competency in certain areas of language activity: Oral and written proficiency in French, ability to apply one's knowledge of francophone culture to appropriate situations in a French language environment, leadership abilities important to secondary school language teaching. Consult department advisor.

To seek departmental approval for full admission to the Professional Teacher Education program, students must have at least a 2.5 grade point average in courses in French taken at UNC.

Students must complete a minor approved by the department.

Student must meet all requirements for the Professional Teaching Education program as described in this Bulletin, including EDLS 363, Clinical Experience (3 hrs.) to be taken along with the Methods course, FL 341.

In order to obtain approval for a student teaching assignment, a French teaching major must have obtained a grade of "B" or better in FL 341 and have successfully passed the department oral proficiency exam (consult advisor).

To be recommended for teacher licensure, the student must have a 2.5 grade point average at the completion of the program on those courses that count toward the major and were taken at UNC.

Required Credits — 10 semester hours

FL 508 Workshop	2
FL 531 Teaching of Foreign Languages	2
FR 505 Topics in French Civilization	3
FR 506 Topics in French Literature	2
FR 521 Problems in Advanced Grammar	1
or	
FR 522 Problems in Advanced Composition	1

Elective Credits — 20 semester hours

Courses in language, literature, and civilization from within the French offerings of the Department of Foreign Languages,	10
Courses from outside of the department in the areas of pedagogy, civilization and culture	10

Note that courses selected must relate logically to the teaching of French. A minimum of two courses in each area will be chosen with the consent of the major advisor.

Notes

Students must successfully complete comprehensive examinations in the areas of French language, literature, and civilizations and Foreign Language teaching methodology.

Bachelor of Arts in Geography Emphasis in Applied Geography

Program Requirements

Required Geography credits	22
Required elective credits	18
General Education credits:	
Specified	3
Remaining	37
Required minor with minimum credits	18
Elective credits	22
Total credits required for this degree	120

The use of geographic concepts of location, distribution and diffusion for the analysis of patterns of economic, social, political and environmental behavior is at the core of applied geography. Beyond analysis, the dynamic application of these concepts makes possible the prediction and planning of significant human activities.

Those electing an applied major in geography are generally preparing for careers in cartography, location analysis, urban and regional planning, or geographic information systems. Examples of specific employment opportunities include computer map design and construction, market research, commercial site and industrial location analysis. Additional positions include transportation planning, land use and real estate analysis and planning, environmental management and community development. Students should select either the applied geography or the liberal arts emphasis in conjunction with their career goals.

Required Geography Credits — 22 semester hours

GEOG 110 Geography of the United States and Canada	3
GEOG 200 Human Geography	3

Bachelor of Arts in Geography Emphasis in Liberal Arts

Program Requirements

Required Geography credits	19
Required elective credits	21
General Education credits	40
Required minor with minimum credits	18
Elective credits	22
Total credits required for this degree	120

Geography is the study of the social, environmental and locational processes that create diversity from place to place on the earth's surface. The geographic perspective helps to explain the reasons for and the significance of local, regional and world patterns and analyzes the role of locational factors in human affairs.

Those electing a liberal arts major in geography are generally preparing for careers in elementary or middle school teaching, cartography, recreation/travel planning, military or political intelligence or resource management. Examples of specific employment opportunities include map design and construction, international business representative, tour planning/operation and area specialist. Additional positions include travel agent, real estate agent, park ranger and peace corps volunteer. Students should select either the applied geography or liberal arts emphasis in conjunction with their career goals.

Required Geography Credits — 19 semester hours

GEOG 110 Geography of the United States and Canada	3
GEOG 200 Human Geography	3
GEOG 232 Physical Geography	4
GEOG 264 Maps and Imagery	3
GEOG 302 Cartography	3
GEOG 495 Senior Seminar	3

GEOG 232 Physical Geography	4
GEOG 264 Maps and Imagery	3
GEOG 302 Cartography	3
GEOG 475 Quantitative Techniques in Geography	3
GEOG 495 Senior Seminar	3

Required Elective Credits — 18 semester hours

Advanced Thematic Credits — 9 semester hours (minimum)

GEOG 312 Economic Geography	3
GEOG 315 Resource Management	3
GEOG 320 Population Geography	3
GEOG 325 Advanced Physical Geography: Topics	3
GEOG 360 Political Geography	3
GEOG 370 Urban Geography	3

Advanced Techniques Credits — 9 semester hours (maximum)

GEOG 392 Field Course in Geography	1-3
GEOG 407 Theory and Use of Geographic Information Systems	3
GEOG 412 Advanced Cartography	3
GEOG 422 Directed Studies	3
GEOG 492 Internship	3

Note that students may take 3 of the above hours in related electives from outside the department with advisor approval. GEOG 325 may be taken for credit more than once. GEOG 422 and GEOG 492 may be taken for credit more than once, but only 3 hours for each course will count toward the major.

General Education, Specified — 3 semester hours

Category 2 — Mathematics

STAT 150 Introduction to Statistical Analysis	3
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Required Elective Credits — 21 semester hours

Advanced Regional Credits — 9 semester hours (minimum)

GEOG 318 Australia	2
GEOG 326 Africa	3
GEOG 335 Geography of Middle America	3
GEOG 340 Europe	3
GEOG 344 Asia: Special Topics	3
GEOG 350 Colorado	3
GEOG 365 Russia and Eurasia	3
GEOG 438 South America	3
GEOG 453 Geography of the Great Plains	3

Note that GEOG 438 and 453 are also offered for graduate credit under the numbers GEOG 538 and GEOG 553. Majors must take a minimum of 9 semester hours in Advanced Regional Geography. GEOG 344 may be taken for credit more than once.

Advanced Systematic Credits — 9 semester hours (minimum)

GEOG 300 Advanced Human Geography: Topics	3
GEOG 312 Economic Geography	3
GEOG 315 Resource Management	3
GEOG 325 Advanced Physical Geography: Topics	3
GEOG 360 Political Geography	3
GEOG 370 Urban Geography	3
GEOG 392 Field Course in Geography	1-3
GEOG 407 Theory and Use of Geographic Information Systems	3
GEOG 412 Advanced Cartography	3
GEOG 422 Directed Studies	1-3
GEOG 475 Quantitative Techniques in Geography	3
GEOG 492 Internship	1-6

Note that majors must take a minimum of 9 semester hours in Advanced Systematic Geography. GEOG 300 and GEOG 325 may be taken for credit more than once. A maximum of 3 hours of GEOG 492 may be counted toward the major. Only one of the following courses may be counted toward the major: GEOG 392, GEOG 407, GEOG 412, GEOG 422, GEOG 475, GEOG 492.

Bachelor of Arts in Geography

Emphasis in Secondary Teaching

Program Requirements

Required credits19

Required supporting credits15

Required elective credits18

General Education credits:

Specified13

Remaining27

Secondary PTEP program39

Total credits required for this degree131

Geography is the study of the social, environmental and locational processes that create diversity from place to place on the earth's surface. The Department of Geography participates in the preparation of teachers by offering a bachelor's degree in geography that meets all requirements for licensure for teaching social studies at the secondary level (grades 7-12). A graduate with this degree will also be qualified to pursue graduate study in geography.

Upon successful completion of this program and the requirements of the Professional Teacher Education program, students will qualify to be licensed to teach social studies at the secondary level. Students choosing this major will be observed by experienced geography faculty when student teaching.

Required Credits — 19 semester hours

GEOG 100 World Geography3

GEOG 200 Human Geography3

GEOG 232 Physical Geography4

GEOG 264 Maps and Imagery3

GEOG 495 Senior Seminar3

SOSC 300 Social Studies Methods of Inquiry3

Required Elective Credits — 18 semester hours

Regional Credits — 6 semester hours (minimum)

 GEOG 110 Geography of the United States and Canada3

 GEOG 318 Australia2

 GEOG 326 Africa3

 GEOG 335 Geography of Middle America3

 GEOG 340 Europe3

 GEOG 344 Asia: Special Topics3

 GEOG 350 Colorado3

 GEOG 365 Russia and Eurasia3

 GEOG 438 South America3

 GEOG 453 Geography of the Great Plains3

Systematic Credits — 12 semester hours (minimum)

 GEOG 300 Advanced Human Geography: Topics3

 GEOG 312 Economic Geography3

 GEOG 315 Resource Management3

 GEOG 320 Population Geography3

 GEOG 325 Advanced Physical Geography: Topics3

 GEOG 360 Political Geography3

 GEOG 370 Urban Geography3

Required Supporting Credits — 15 semester hours

ECON 103 Introduction to Economics: Macroeconomics3

HIST 101 Survey of American History — 1877 to Present3

HIST 110 African Civilization3

 or

HIST 113 Asian Civilization II: the Modern Transformation3

HIST 120 Western Civilization to 16893

 or

HIST 121 Western Civilization — 1689 to Present3

PSCI 100 United States National Government3

General Education, Specified — 13 semester hours

Category 4 — Arts and Letters

 HIST 100 Survey of American History to 18773

Category 5 — Social Science

 ANT 100 General Anthropology3

 or

 SOC 100 Principles of Sociology3

 PSY 120 Principles of Psychology4

Category 7b — Multicultural - Select one of the following:

 AFS 101 Crisis of Identity3

 HISP 102 Hispanic Cultures in the United States3

 WS 120 Women and Men in Perspective3

Notes

No minor is required for this major emphasis area.

All requirements for the Professional Teacher Education program, as described in this Bulletin, must be met.

No geography teaching major may apply for admission to the Professional Teacher Education (PTEP) program until he or she has passed at least 15 semester hours of courses in the major, at least 6 hours of which must have been taken at the University of Northern Colorado.

To be admitted to PTEP, a student must have a 2.75 grade point average in those courses counting toward his or her major that were taken at UNC and must have taken at least three courses with the GEOG prefix.

In the Secondary PTEP, students must take both SOSC 341 and GEOG 410.

Before being permitted to apply for student teaching, a student must have successfully completed at least 30 hours in the major and maintained a 2.75 grade point average in major courses taken at UNC.

Bachelor of Arts in German Emphasis in Liberal Arts

Program Requirements

Required credits	31
Required elective credits (minimum)	3
General Education credits	40
Required minor with minimum credits	18
Elective credits	28
Total credits required for this degree	120

The German Liberal Arts Major stresses acquisition of the four language skills (listening, speaking, reading, writing) through performance-oriented classes at all levels, conducted in German. Students develop skills in critical thinking as they acquire familiarity with German literature and civilization. The department's extracurricular activities encourage cultural awareness while developing leadership, organizational and promotion abilities, and the German Study Abroad Program can further expand cultural knowledge and language proficiency.

German Liberal Arts majors may choose to pursue graduate study in German or, having combined their language study with other fields such as business, political science, international trade and relations, history, fine arts and others, become involved in careers in international business, world affairs, social work or the arts.

Required Credits — 31 semester hours

GER 201 Intermediate German I	3
GER 202 Intermediate German II	3
GER 301 German Conversation and Composition I	3
GER 302 German Conversation and Composition II	3
GER 311 German Civilization & Literature Survey I	3
GER 312 German Civilization & Literature Survey II	3
GER 407 German for Oral Proficiency	3
GER 475 Seminar in German Literature	2
Advanced Literature Credits	8

Required Elective Credits — 3 semester hours (minimum)

GER 150 Practicum in Contemporary Culture	1
GER 300 Intermediate German Readings	1-3
GER 350 Practicum in Teaching German	2
GER 401 Intensive German	4
GER 402 Contemporary Life in Germany	3
GER 403 Practicum in Germany	4
GER 404 Modern Germany	4
GER 405 Business German	3
GER 450 Studies in German Literature	3

Notes

All work to be counted toward the B.A. in German, Liberal Arts emphasis, must be beyond the first year level.

Advising and advisor's signature required before registration each semester.

Students must demonstrate competency in certain areas of language activity: oral and written proficiency in German, ability to apply one's knowledge of the German culture to appropriate situations in a German language environment. Consult department advisor.

Students must complete a minor approved by the department.

To graduate with a German Liberal Arts major, the student must have a 2.5 grade point average in those courses that count toward the major and that were taken at UNC.

Bachelor of Arts in German Emphasis in Teaching

Program Requirements

Required credits	34
Required elective credits (minimum)	3
General Education credits:	
3 credits already included in requirements above	
Remaining	37
PTEP program	37-39
Required minor with minimum credits	18
Total credits required for this degree	129-131

In preparing majors for careers in secondary school teaching of German, this program stresses acquisition of the four language skills (listening, speaking, reading, writing) through performance-oriented classes at all levels, conducted in German. Students develop skills in critical thinking as they acquire familiarity with German literature and civilization. The department's extracurricular activities encourage cultural awareness while developing leadership and organizational and promotional abilities necessary to foreign language teaching, and the German Study Abroad Program can further expand cultural knowledge and language proficiency. Pedagogical skills are developed through numerous clinical teaching experiences offered within the department as well as through Professional Teacher Education.

Completion of the German teaching major qualifies the student for State of Colorado Licensure to teach German in the secondary school and for graduate study in German. Training includes development of the four language skills in German, knowledge of Germanic culture and literature, and development of pedagogical and organizational skills expected in the German teaching profession. Also, students who combine their language study with other fields such as business, political science, international trade and relations, history, or fine arts can become involved in careers in international business, world affairs, social work, or the arts.

Required Credits — 34 semester hours

FL 341 Methods of Teaching in the Secondary School	3
GER 201 Intermediate German I	3
GER 202 Intermediate German II	3
GER 301 German Conversation and Composition I	3
GER 302 German Conversation and Composition II	3
GER 311 German Civilization & Literature Survey I	3
GER 312 German Civilization & Literature Survey II	3
GER 350 Practicum in Teaching German	2
GER 407 German for Oral Proficiency	3
Advanced Literature Credits	8

Master of Arts in Foreign Languages Emphasis in German Teaching

Program Requirements

Complete the required credits specified here	10
Complete program electives specified here	20

Not all graduate level courses are offered on a regular basis. Contact department for current offerings.

The program is designed for secondary teachers of German who desire further preparation at the graduate level.

The program concentrates on the development of high-level functional proficiency in the four language skills and provides in-depth understanding of the cultural and literary achievements of German-speaking societies. The most recent developments in foreign language methodologies will be studied and researched.

Admission

Admission to this program has been suspended until further notice. Consult department chair.

In addition to meeting standard Graduate School admissions requirements, applicants to the master's program in Foreign Language Teaching — German must possess a B.A. in German or the equivalent and must have completed one year of teaching experience.

Students may complete the M.A. degree: in summers only or during the academic year only or by combining summer work with regular academic year program offerings.

Required Elective Credits — 3 semester hours (minimum)

GER 150 Practicum in Contemporary Culture	1
GER 300 Intermediate German Readings	1-3
GER 405 Business German	3
GER 450 Studies in German Literature	3
GER 475 Seminar in German Literature	2

Notes

All work to be counted toward the B.A. in German, teaching emphasis, must be beyond the first year level.

Advising and advisor's signature required before registration each semester.

Students must demonstrate competency in certain areas of language activity: oral and written proficiency in German, ability to apply one's knowledge of the German culture to appropriate situations in a German language environment, leadership abilities important to secondary school language teaching. Consult department advisor.

To seek department approval for full admission to PTEP, students must have at least a 2.5 grade point average in courses in German taken at UNC.

Student must complete a minor approved by the department.

Students must meet all requirements for the Professional Teacher Education program as described in this Bulletin, including EDLS 363, Clinical Experience (3 credit hours) to be taken along with the Methods course, FL 341.

In order to obtain approval for student teaching assignment, a German teaching major must have obtained a grade of "B" or better in FL 341 and have successfully passed the department oral proficiency examination (consult advisor).

To be recommended for teacher licensure, the student must have at least a 2.5 grade point average at the completion of his or her program in those courses that count toward the major and were taken at UNC.

Required Credits — 10 semester hours

FL 508 Workshop	2
FL 531 Teaching of Foreign Languages	2
GER 505 Topics in German Civilization	3
GER 506 Topics in German Literature	2
GER 521 Problems in Advanced Grammar	1
or	
GER 522 Problems in German Composition	1

Elective Credits — 20 semester hours

Courses in language, literature and civilization from within the German offerings of the Department of Foreign Languages

Courses from outside of the department in the areas of pedagogy and civilization and culture

Note that courses selected must relate logically to the teaching of German. A minimum of two courses in each area will be chosen with the consent of the major advisor.

Notes

The department offers a Study Abroad Program in Germany. Master's degree candidates are encouraged to participate and, when qualified, may obtain an assistantship.

Students must successfully complete comprehensive examinations in the areas of German language, literature and civilization and Foreign Language teaching methodology.

Bachelor of Arts in Hispanic Studies

Emphasis in Mexican-American Studies

Program Requirements

Required credits	24
Required elective credits	12
General Education credits	40
Complete a minor with minimum hours	21
Elective credits	24
Total credits required for this degree	121

Students develop a functional proficiency in the Spanish language along with an understanding and appreciation of the literature, civilization and culture of the Hispanic world, the United States Southwest and Hispanics of the United States.

Students become linguistically and culturally proficient for work or travel in the Hispanic world.

Required Credits — 24 semester hours

HISP 101 Introduction to Mexican-American Studies	3
HISP 110 Contemporary Chicano Literature	3
HISP 300 Social Stratification in the Mexican-American Community	3
HISP 320 LaChicana	3
HISP 325 History of the Chicano in the Southwest	3
(prerequisite HISP 101)	
HISP 370 Chicano Psychology	3
HISP 414 Contemporary Chicano Issues	3

Required Elective Credits — 12 semester hours

SPAN 210 Intermediate Spanish I	3
SPAN 202 Intermediate Spanish II	3
SPAN 301 Spanish Grammar	3
SPAN 303 Spanish Conversation	3
SPAN 410 Chicano Spanish Linguistics	3

SPAN 411 Spanish for Bilingual Education I	3
SPAN 412 Spanish for Bilingual Education II	3
HISP 111 Introduction to Hispanic Literature	3
HISP 141 Mexican Civilization & Culture	3
HISP 220 Women in Hispanic Society	3
HISP 395 Historical, Philosophical, Legal, & Cultural Dimensions of Bilingual Education	3
HISP 400 Bilingual and English as a Second Language Methods	3
HISP 410 Assessment and Diagnostic Testing in Bilingual Classrooms	3
HIST 118 History of Mexico	3
SOC 237 Sociology of Minorities	3
ANT 311 Ethnology of Hispanic Peoples	3
PSY 467 Psychology of Prejudice	3
SPCO 323 Intercultural Communication	3

Notes

ENG 238, Introduction to Folklore, will fulfill the elective requirement only if taken when the Hispanic folklore is being taught in the series of Introduction to Folklore courses.

A minor of at least 21 semester hours is required with prior approval from the department.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

At least 50 percent of the courses taken to complete the major must be upper division courses, 300-400 level.

Bachelor of Arts in History

Emphasis in Liberal Arts

Program Requirements

Required History credits	18
Required elective credits	24
General Education credits	40
Required minor with minimum credits	18
Elective credits	20
Total credits required for this degree	120

Historical study is concerned with the record of the human past and forms the indispensable background for all other areas of knowledge in the humanities, the social sciences and the sciences. A well-rounded curriculum of American and world history courses is provided in which students are encouraged to be critical and analytical in thought as well as to be incisive and cogent in their writing. The capstone of a student's study is a seminar during the senior year, which includes an extensive research paper as the central component.

Graduates with a bachelor's degree in history generally enter teaching or affiliated academic professions. They also go into law, government service or medicine, or occupy various positions in the business world; additionally, they are qualified to do graduate study in history. The University has designated the Department of History as a Center of Excellence.

Required History Credits — 18 semester hours

HIST 100 Survey of American History from its Beginnings to 1877	3
HIST 101 Survey of American History from 1877 to the Present	3
HIST 120 Western Civilization from Ancient Greece to 1689	3
HIST 121 Western Civilization from 1689 to the Present	3
HIST 480 Senior Seminar	3
<i>Select one of the following:</i>	
HIST 110 African Civilization	3
HIST 112 Asian Civilization I	3
HIST 113 Asian Civilization II	3
HIST 118 History of Mexico	3

Note that in addition to meeting the above program requirements, all history majors in their senior year must take, for state mandated assessment purposes, the nationally standardized history examination — or a departmentally approved equivalent — administered by the Department of History.

Required Elective Credits — 24 semester hours

In addition to the required credits, each major will also take twenty-four hours of electives. Twelve of these must be in a concentration area (Europe; United States; Africa/Asia/Latin America). Of the remaining twelve hours, six must be in each of the other areas. For example: if the major's concentration area is Europe, the student must take six hours in African/Asia/Latin America and six hours in United States history. At least eighteen of the twenty-four hours must be taken from courses numbered 300 or 400.

Notes

History majors must obtain a grade of "C" or better in all history courses taken at UNC. Majors receiving a grade of "D" or lower in a history course must retake the course — or an equivalent approved by the academic advisor — and receive a grade of "C" or higher to have the course counted toward the major.

History majors must complete a minor of at least 18 semester hours, preferably within the College of Arts and Sciences. (History Education majors seeking elementary, middle school, or secondary licensure are exempted from this minor requirement.)

All history courses numbered 300 or higher include a research and writing component.

The study of a foreign language is recommended for those majors who plan to pursue graduate study in history.

Bachelor of Arts in History Emphasis in Teaching

Program Requirements

Required History credits	19
Required supporting credits	24
Required elective credits	24
General Education credits:	
12 credits already included in requirements above	
Remaining	28
PTEP requirements	35
Total credits required for this degree	130

The Department of History fulfills an important role in training teachers at the undergraduate and graduate levels. In addition to its emphasis in content areas of history and social science, it participates in clinical and student-teaching experience/placement for its students. Experienced history faculty are regularly assigned the responsibility of observing our student teachers in the field. The end result of a student's study is a senior seminar completed under the direction of a faculty advisor during the senior year in residence.

A graduate with a bachelor's degree in history and who receives departmental endorsement in the social studies licensure area is qualified to teach in the secondary schools and to pursue graduate study in history. Additionally, with a major in history a student may seek licensure for elementary or middle school teaching. The University has designated the Department of History as a Center of Excellence.

Required History Credits — 19 semester hours

HIST 100 Survey of American History from Its Beginnings to 1877	3
HIST 101 Survey of American History from 1877 to the Present	3
HIST 120 Western Civilization from Ancient Greece to 1689	3
HIST 121 Western Civilization from 1689 to the Present	3
HIST 498 Teaching History in the Secondary Curriculum	1
HIST 480 Senior Seminar	3
<i>Select one of the following:</i>	
HIST 110 African Civilization	3
HIST 112 Asian Civilization I	3
HIST 113 Asian Civilization II	3
HIST 118 History of Mexico	3

Required Supporting Credits — 24 semester hours

Social Sciences

ANT 100 General Anthropology	3
ECON 103 Introduction to Economics: Macroeconomics	3
GEOG 100 World Geography	3
PSCI 100 United States National Government	3
SOC 100 Principles of Sociology	3
SOSC 341 Teaching Secondary Social Sciences	3
Social Science electives: a minimum of two courses, numbered 200 or higher must be taken.	

Required Elective Credits — 24 semester hours

In addition to the required courses, each major will also take 24 additional hours of electives. Twelve of these must be in a concentration area (Europe; United States; Africa/Asia/Latin America). Of the remaining 12 hours, 6 must be in each of the other areas. For example, if the major's concentration is in Europe, students must take 6 hours in African/Asian/Latin American history, and 6 hours in United States history. At least 18 of the 24 hour total must be taken from courses numbered 300 or 400.

In addition to meeting the above program requirements, all history majors in their senior year must take, for state mandated assessment purposes, the nationally standardized history examination — or a departmentally approved equivalent — administered by the Department of History.

Notes

No minor is required in the History Education program for students seeking elementary, middle school, or secondary school licensure.

All history courses numbered 300 or higher will include a research and writing component.

Secondary Professional Teacher Education (SPTEP) is required of this program.

The History Secondary Education major should follow the phase program delineated by the Secondary Professional Teacher Education Program.

No history major may apply for admission to the PTEP program until completion of at least 15 semester hours in the major. At least 9 of these hours must have been taken at the University of Northern Colorado.

Before being permitted to apply for student teaching, a history major must have completed successfully 27 hours in the major and have at least a 2.8 grade point average in major courses taken at UNC.

History majors must obtain a grade of "C" or better in all history courses taken at UNC. Majors receiving a grade of "D" or lower in a history course must retake the course — or an equivalent approved by the academic advisor — and receive a grade of "C" or higher to have the course counted toward the major.

Master of Arts in History

Program Requirements

Complete the required courses specified here3
Complete program electives specified here27

The master's degree in history has been designed with several options in mind. It may be taken as a foundation for further advanced graduate work; as part of an individualized program that prepares students for a secondary teaching career; or as a terminal degree. Whichever option a student selects, faculty will stress the development of research techniques, analysis of historical data and expository writing skills.

Students receiving a master's degree in history will be competent in research methodology, writing skills and content in selected areas of history. Opportunities include advanced work in history, teaching at the secondary level (with licensure) or in junior and community colleges. Additionally, graduates may apply for professional schools, e.g., in law, library science, theology, museum curatorship and archival work. The University has designated the Department of History as a Center of Excellence.

Required Courses — 3 semester hours

HIST 600 Introduction to Graduate Historical Study3

Elective Courses — 27 semester hours

Elective courses may be taken from any of the 500 or 600 numbered courses carrying a HIST prefix, or those 300-level HIST prefix courses, which are double-numbered, i.e., carry both 300/500 numbers in the catalog. Students are restricted to a nine hour limit on double-numbered courses.

Notes

Candidates for the M.A. in history should consult with the chair of the history department and the departmental graduate coordinator as soon as possible during the first semester of graduate work so that a major field advisor may be assigned. A plan of study will be approved by the advisor and the graduate coordinator. Candidates, in consultation with the major field advisor, will select two other department members who together will constitute the candidate's examining committee. Candidates are urged to consult frequently with the faculty who compose their committee.

Each candidate for the master's degree will receive in his or her first week on campus a departmental "packet," containing a description of the program, a reading list to be mastered before the taking of the comprehensive examination or the thesis oral and a bank of comprehensive examination questions.

Thesis Option

A minimum/maximum of six hours may be earned in HIST 699 by writing a thesis on a subject that falls within the student's concentration. At least 15 hours of coursework, in addition to the six thesis hours, must be concentrated in one of the following areas: United States; European; Africa/Asia/and Latin American history. The remaining six hours in history that round out the candidate's program should be taken from outside the concentration area. Research and writing of a thesis precludes comprehensive examinations. An oral examination will be held after the student's major professor has accepted the thesis for presentation to the candidate's committee. Students will be responsible on the oral for a mastery of their field, including the reading list they have received during their first week in the program.

Candidates have one opportunity to retake a failed oral examination. At least one full semester must elapse between the failure of the first examination and the reexamination. A failing grade on the second examination will eliminate the student from the master's degree program in history.

Non-Thesis Option

Candidates must concentrate fifteen hours of coursework in one of the following areas: American History, European History, African/Asian/Latin American History. The area chosen will become the student's major field. Twelve hours of additional history courses at the 500/600 or the 300/500 levels must be completed outside the student's concentration area.

Students who elect this option are required to pass written and oral examinations in their concentration area. The written examination will be three hours in length and may be taken no earlier than the second semester of graduate study. Within two weeks of the written examination, candidates receiving a passing grade from each member of their examining committee on the comprehensive will be examined orally, usually for two hours, over the concentration. Students will be responsible on the oral for a mastery of their field of study, including the reading list they have received during their first week in the program.

Candidates have one opportunity to retake a failed written or oral examination. At least one full semester must elapse between the failure of the first examination and the re-examination. A failing grade on the second examination will eliminate the student from the master's degree program in history.

Comprehensive and Thesis Fields in History

<i>European</i>	<i>United States</i>	<i>Africa/Asia/Latin American</i>
Ancient	Colonial Period to	Comprehensive or thesis to
Medieval	the Present	be developed with candidate's
Early Modern		developed with candidate's
Modern		graduate advisor and committee.

Notes

Candidates must obtain a permit from the Department of History allowing them to take their comprehensive or thesis/oral examination. The student must return the permit to the department office no later than the end of the sixth week of the semester in which the examination will be taken. At this time a specific date will be set by the department chair with the advice of the candidate's major professor and committee.

The maximum credit that may be earned in HIST 622, Directed Studies, is six hours. Candidates must obtain prior approval and the signatures of their advisor and the department chair before enrolling.

The minimum/maximum credit that may be earned in HIST 699, "Thesis," is six hours.

Only nine hours of designated double numbered courses (300/500) may be applied to the master's degree program.

All students will be examined orally by a department committee during the their second semester in residence. A "pass" or "conditional pass" recommendation by the committee will permit a student's continuance in the program. A "fail" recommendation will eliminate the student from the History M.A. program. All students without exception must satisfy the thirty hours master's degree requirement.

Scholarships: Master's degree candidates are encouraged to apply for the Oliver M. Dickerson stipend presently established at \$1,000-\$4,000 per academic year. Application should be made to the Coordinator of Graduate Studies, Department of History, University of Northern Colorado, Greeley, CO 80639. Other graduate scholarships may be applied for by writing to the Office of Student Financial Resources, University of Northern Colorado, Greeley, CO 80639.

Bachelor of Arts in Interdisciplinary Studies

Administered by the College of Arts and Sciences

Program Requirements

Required credits	3
Required elective credits	57
General Education credits	40
Elective credits	20
Total credits required for this degree	120

The Bachelor of Arts degree in Interdisciplinary Studies enables any undergraduate student to pursue an interdisciplinary theme of study he or she has devised in substitution for the traditional major. Each student works with two faculty advisors who assist in constructing a program of coursework that will meet the student's objectives. This program affords students the opportunity to pursue topics of study tailored to meet their individual interests and needs.

Graduates will benefit by pursuing a major that develops awareness of the interrelatedness and wholeness of knowledge. This program enables students to integrate knowledge focusing on both contemporary and lasting human issues and problems. Students will develop both theoretical and practical approaches to topics. This major will provide the groundwork for students who aspire to useful careers in such important fields as urban affairs, business relations, environmental protection, human development and international relations.

Required Credits — 3 semester hours

XXXX 422 Directed Studies	3
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(Must have regular prefix of appropriate area of study — with the departmental prefix of the primary advisor as supervising faculty.)

Required Elective Credits — 57 semester hours

Complete an approved, coherent multi- or interdisciplinary program of electives

Notes

Students desiring to enter the program must have their interdisciplinary studies proposal approved by the Interdisciplinary Studies Committee no later than the first semester of their junior year.

At least 50 percent of the courses taken to complete the major must be upper division courses, 300-400 level.

Interdisciplinary studies proposals must include at least three courses from a minimum of two disciplines to be considered acceptable proposals.

Students in this program must maintain a grade point average of 2.6 or above.

Bachelor of Arts in Interdisciplinary Studies

Emphasis in International Trade and Relations

Program Requirements

Required core credits	45
Required concentration area elective credits	18
General Education credits	40
Elective credits	17
Total credits required for this degree	120

The emphasis area will develop a broad understanding of international issues through the study of foreign language, economics, geography, history, political science, communication and anthropology.

The program will prepare individuals to work in analytical or research positions with private and public agencies with an international focus. The major also prepares the student for graduate school in international studies.

Required Core Credits — 45 semester hours

Select one of the following groups:

ECON 305 Microeconomics	3
ECON 345 International Trade	3
or	
ECON 303 Macroeconomics	3
ECON 346 International Finance	3
GEOG 200 Human Geography	3
HIST 240 Modern America, 1914 to Present	3
PSCI 220 Introduction to International Relations	3
PSCI 318 The Politics of Developing States	3
SPCO 323 Intercultural Communication	3
Select one of the following groups:	
MATH 175 Topics in Finite Mathematics	3
MATH 176 Topics in Calculus	3
ECON 452 Econometrics	3
or	
SOC 351 Classical Social Theory	3
SOC 361 Social Research	3
SOC 362 Social Statistics	3
Foreign Language credits at the intermediate level	12
Thesis	3

Required Concentration Area Credits — 18 semester hours

In addition to the core requirements, the student is to take 18 additional hours (at least 1 course each in anthropology, geography, history and political science) in one of the following concentration areas that complements the student's language training. No more than three hours of internship may be used to complete any concentration area. Internships for more than three hours are available above the 15 hour requirement.

Concentration Area: African and Middle Eastern

ANT 110 World Cultures	3
ANT 310 World Area Study (Africa)	3
AFS 104 Survey of Africa	3
AFS 332 Pan-Africanism	3
AFS 396 African and Afro-American Worldviews	3
ECON 250 Comparative Economic Systems	3
ECON 360 Economics of Growth and Development	3
GEOG 326 Africa	3
GEOG 392 Field Course in Geography (Africa and/or Middle East)	3
HIST 110 African Civilization	3
HIST 130 Middle East History I	3
HIST 131 Middle East History II	3
HIST 317 Themes on Middle East History	3
HIST 318 Modern Africa	3
PSCI 325 Conflict in the Middle East	3
PSCI 328 International Law and Organization	3

Concentration Area: Asian

ANT 110 World Cultures	3
ANT 313 Modernization and Development	4
ECON 250 Comparative Economic Systems	3
ECON 360 Economics of Growth and Development	3
GEOG 344 Asia — Topics	3
HIST 112 Asian Civilization I	3
HIST 113 Asian Civilization II	3
HIST 309 Modern Southeast Asia	3
HIST 310 Modern China	3
HIST 311 Modern Japan	3

HIST 313 India	3
HUM 115 Literature and Arts of the Orient	3
HUM 225 Studies in Asian Humanities	3
MIND 181 Great Traditions of Asia	3
PSCI 328 International Law and Organizations	3
SOC 270 World Population Problems	3
Concentration Area: European	
ANT 110 World Cultures	3
ECON 250 Comparative Economic Systems	3
ECON 360 Economics of Growth and Development	3
FR 116 Contemporary France	3
GEOG 340 Europe	3
GEOG 365 Russia and Eurasia	3
GEOG 392 Field Course in Geography (Europe)	3
GER 116 Contemporary Germany	3
HIST 120 Western Civilization from Ancient Greece to 1689	3
HIST 121 Western Civilization from 1689 to the Present	3
HIST 216 History of Spain and Portugal	3
HIST 263 European Intellectual History	3
HIST 369 Britain in the Modern Age: 1689 to the Present	3
HIST 376 France from 1848	3
HIST 385 History of the Holocaust: 1935 to the Present	3
HIST 386 Soviet History: 1917 to the Present	3
HIST 389 Modern Europe	3
PSCI 210 Politics in the European Community	3
PSCI 310 Politics of Central and East European States	3
PSCI 328 International Law and Organizations	3
Concentration Area: Latin American	
ANT 110 World Cultures	3
ANT 311 Ethnology of Hispanic Peoples	3
ECON 250 Comparative Economic Systems	3
ECON 360 Economics of Growth and Development	3
GEOG 335 Geography of Middle America	3
GEOG 392 Field Course in Geography (Latin America)	3
GEOG 438 South America	3
HISP 131 Latin American Civilization and Culture	3
HISP 141 Mexican Civilization and Culture	3
HISP 220 Women in Hispanic Society	3
HIST 118 History of Mexico	3
HIST 314 History of Latin America to 1855	3
HIST 315 History of Latin America: 1855 to the Present	3
PSCI 328 International Law and Organizations	3

Notes

At least one half of all courses (including both core and elective courses) taken must be at the 300- and 400-level. ECON 103 and 105 are prerequisites for ECON 300 and 350 to be taken under general education. Students who plan to attend graduate school may substitute MATH 131 and prerequisites for MATH 175 and 176.

Language proficiency is estimated to require at least 12 hours of study at the intermediate level or above. Demonstrated proficiency at the intermediate/high level on the ACTFL/ETS Oral Proficiency Interview fulfills the language requirement regardless of the actual number of language credits taken.

UNC offers a full complement of courses in French, Spanish and German. Students who wish to pursue other languages are responsible for supplementing UNC course offerings with outside language study (e.g., regular courses at other universities, long distance education, and/or tutoring) in order to achieve proficiency.

A thesis is required to graduate from the program. The thesis topic and faculty thesis advisor must be approved by the ITR Director. It is recommended that the student begin the thesis two semesters before graduation. Thesis credit will be taken as a directed study in the department of the thesis advisor.

No more than three hours of internship may be used to complete any concentration area. Internships for more than three hours are available above the 18 hour requirement.

Students must formally apply to the ITR Committee (970-351-2572) before being admitted to the program. A 2.6 cumulative GPA is required for entrance to and graduation from the International Trade and Relations program.

Master of Science in Interdisciplinary Studies: Secondary Science Teaching

Program Requirements

Complete required semester hours in first science discipline	12
Complete required semester hours in second science discipline	12
Complete program elective semester hours specified below	9

The Interdisciplinary Master of Science in Secondary Science Teaching is a comprehensive degree program coordinated by the UNC Mathematics and Science Teaching (MAST) Center. It provides post-baccalaureate education primarily focused on science content appropriate for secondary school teachers. Students in this program have access to resources available in the University's science departments (Biological Sciences, Chemistry and Biochemistry, Earth Sciences, and Physics), Mathematical Sciences Department and related departments/divisions within the College of Education. The program is specifically designed to strengthen science content areas in which teachers may need additional background to meet current or future teaching responsibilities.

Admission

Applicants must follow the admission procedures outlined under "Admission to a Graduate Interdisciplinary Program" (see "Special Admission: Procedures and Requirements" in this Bulletin) and must meet the minimum admission requirement for the master's degree. Applications meeting minimum Graduate School admission requirements will be forwarded to the MAST Center for review and a subsequent recommendation regarding admission by the Graduate School. An applicant should have completed the equivalent of a baccalaureate program (including a professional teacher education core) in biological sciences, chemistry, earth sciences, or physics. Persons with deficiencies (see "Prerequisites" below) may be admitted, but all deficiencies must be removed before completion of the program.

Prerequisites

In addition to the above baccalaureate degree, entering students should have completed a minimum of 8 semester hours of courses in each of three supporting science areas, 8 semester hours in approved courses in mathematics and a professional teacher education core. Prerequisite supporting science area courses include the following UNC courses or their equivalents:

- Biological Sciences: BIO 110, 111
- Chemistry and Biochemistry: CHEM 111, 112
- Earth Sciences: AST 100, 301, 302; GEOL 100, 201, 202; MET 205, 306; OCN 200, 301, 302
- Physics: PHYS 220, 221

Required Courses — 24 semester hours (minimum)

The Interdisciplinary Master of Science in Secondary Science Teaching is a 33 semester hour program. Subject to approval of the student's program advisors, students must select a minimum of 12 semester hours of courses in each of two science disciplines (see below).

The selected courses should build upon the student's background and contribute to professional growth in secondary school science teaching. Graduate courses selected to satisfy the science discipline requirements must bear appropriate course prefixes (biological sciences: BIO, BOT, ZOO; chemistry: CHEM, CHED; earth sciences: AST, ESCI, GEOL, MET, OCN; physics: PHYS, approved SCI). UNC graduate courses in these areas are listed in this Bulletin.

A two-course research core (4 semester hours minimum) is required of each student in the program. One course must be selected from BIO 694, CHEM 600 (at least two semester hours), ESCI 600, or PHYS 661. The second course should be one of the following: BIO 697, BIO 699, CHEM 622, CHEM 699, ESCI 697, ESCI 699, or PHYS 622.

Required Elective courses — to complete 33 semester hours

In addition to the 24 hours of required courses, students must complete elective courses to satisfy the 33 semester hour requirement. Subject to approval by the student's program advisors and based on individual needs, electives may be taken in either the science disciplines or in supporting areas.

Notes

All students are required to pass written and oral comprehensive examinations covering the completed coursework.

All graduate school requirements for the interdisciplinary master's degree must be met. The degree awarded will be an Interdisciplinary Master of Science degree.

Individuals seeking such licensure should consult their program advisors. This master of science degree does not lead to Colorado teacher licensure.

Journalism and Mass Communications Major Requirements

To become a major in the Department of Journalism and Mass Communications, you first become a pre-JMC major. This is done by filling out a "Change of Major/Minor" form, available from the department. The pre-major should be declared in the freshman or sophomore year.

Application for admission to full JMC-major status should take place during the sophomore year. It is important to note that the JMC major is a two-year program beyond the time at which a pre-major is admitted with full JMC major status. Whether admitted as a sophomore, junior or senior, the newly admitted JMC major will often need two full academic years to complete the major course requirements. In particular, seniors and transfer students who are considering applying to become JMC majors are advised that it is not usually possible to complete the process of application to the major and all the required coursework in fewer than four regular semesters.

Students may apply to become a JMC major after completing JMC 100 and 30 hours of undergraduate semester credit. To apply:

- complete and submit an "Application for Admission to Journalism and Mass Communications Major" form, available from the department three weeks before each deadline;
- submit official transcripts from all colleges and universities attended other than UNC, if any, with the form noted above.

Mail or deliver the materials noted above to the Department of Journalism and Mass Communications, Candelaria Hall, Room 123, University of Northern Colorado, Greeley, CO 80639.

Your application must reach the Department Office by the deadlines indicated below:

- Fall semester admission: February 15
- Spring semester admission: October 15
- No admission decisions are made during the summer.

Students are permitted to apply to the major only once a semester, for only one emphasis per semester.

Should the number of qualified applicants exceed space available in required courses, the department will admit only those students ranking highest in cumulative grade point averages.

JMC majors may not take the Media Studies minor. Students cannot declare a minor until they have been admitted to the major.

JMC majors must complete courses for only one JMC emphasis, and changing from one emphasis to another after admission to the major may be prohibited by the department.

The JMC department is committed to liberal arts education. To graduate, JMC majors must therefore complete at least 90 hours of courses outside JMC, 65 of which must be in the liberal arts and sciences. JMC students taking more than 30 hours of JMC courses will thus need more than 120 hours to graduate.

Bachelor of Arts in Journalism Emphasis in News-Editorial

Program Requirements

Required Journalism credits	21
Required elective credits	9
General Education credits:	40
Required minor with minimum credits	18
Elective credits	32
Total credits required for this degree	120

The news-editorial emphasis is designed to provide a professional learning experience in reporting, writing and editing. Under the guidance of experienced news people, students perform news-oriented tasks of progressively greater complexity and scope. Students receive individualized assessments of their work on a regular basis.

Graduates of the news-editorial emphasis are qualified for employment in a wide variety of news organizations. These include, but are not limited to, weekly and daily newspapers, radio, TV and cable outlets and magazines. For some students, the news-editorial emphasis is a preparation for careers in related professions, such as law and government.

Required Journalism Credits — 21 semester hours

JMC 100 Introduction to Journalism and Mass Communications	3
JMC 210 Newswriting	3
JMC 350 News Editing and Layout	3
JMC 390 Impact of Mass Communications on Society	3
JMC 397 Journalism History	3
JMC 410 Advanced News and Feature Writing	3
JMC 497 Mass Communications Law	3

Required Elective Credits — 9 semester hours

Group A — News-Editorial Elective Credits (select one of the following):

JMC 340 Broadcast Newswriting	3
JMC 380 Public Relations	3
JMC 460 Media Management	3
JMC 492 Journalism and Mass Communications Internship	3
(Internship strongly recommended)	
ART 271 Basic Photography	3

Group B — Journalism and Mass Communications Elective Credits

Take six additional hours in courses with a JMC prefix	6
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Bachelor of Arts in Journalism

Emphasis in Public Relations and Advertising Media

Program Requirements

Required Journalism credits	27
Required elective credits	3
General Education credits	40
Required minor with minimum credits	18
Elective credits	32
Total credits required for this degree	120

Students in this emphasis learn the theory, writing skills and professional competencies they need to practice effective public relations and to effectively use media for advertising and promotion.

Students successful in the emphasis learn techniques and tools for entry-level employment in public relations, community relations, media relations, advertising or promotion. Students also become familiar with the history, ethical issues and professional problems in these areas and are thereby prepared to assume professional careers and/or undertake graduate study in these areas.

Required Journalism Credits — 27 semester hours

JMC 100 Introduction to Journalism and Mass Communications	3
JMC 210 Newswriting	3
JMC 345 Broadcast Advertising and Promotion	3
JMC 350 News Editing and Layout	3
JMC 380 Public Relations	3
JMC 385 Media Planning and Research	3
JMC 390 Impact of Mass Communications on Society	3
JMC 481 Public Relations Techniques	3
JMC 497 Mass Communications Law	3

Required Elective Credits — 3 semester hours in JMC

(Internship strongly recommended)

The following courses are recommended:

BAMK 360 Marketing	3
BAMK 365 Advertising	3
BAMK 461 Advertising Campaigns	3
BAMK 470 Direct Marketing	3
ECON 105 Introduction to Economics: Microeconomics	3
SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
SPCO 212 Professional Speaking	3
SPCO 330 Small Group Communication	3
SPCO 331 Organizational Communication	3
SPCO 343 Persuasion	3
SPCO 444 Argumentation Theory	3

Bachelor of Arts in Journalism

Emphasis in Telecommunications

Program Requirements

Required Journalism credits	23
Required elective credits	6-7
General Education credits:	12
JMC pre-major requirements specified	
Remaining	28
Required minor with minimum credits	18
Elective credits	32-33
Total credits required for this degree	120

Students learn writing, production and critical evaluation of radio and television content. The education and skills development are applicable to the full range of audio and video enterprises, including cablevision, educational media, corporate television and broadcast journalism.

This emphasis also familiarizes the student with the history, economics, effects and ethical issues behind radio and television, and thereby prepares students as professionals and potential graduate students in the field.

Required Journalism Credits — 23 semester hours

JMC 100 Introduction to Journalism and Mass Communications	3
JMC 210 Newswriting	3
Select one of the following:	
JMC 241 Radio Production and Broadcast Announcing	3
JMC 340 Broadcast Newswriting	3
JMC 342 Television Production	4
JMC 390 Impact of Mass Communications on Society	3
JMC 443 Electronic Field Production	4
JMC 497 Mass Communications Law	3

Required Elective Credits — 6-7 semester hours

Take additional hours in courses with JMC prefixes. (Internship strongly recommended)

Bachelor of Arts in Mathematics Emphasis in Actuarial Science

Required Mathematics credits	30
Required supporting credits	26
General Education credits	40
Elective credits	24
Total credits required for this degree	120

This program is designed to give students a basic understanding of the mathematical, statistical and financial knowledge needed to enter the actuarial field. Coursework will cover the material of the first 110 credits of the Society of Actuaries exam sequence.

Students completing the degree will be prepared to enter the actuarial field where there are employment possibilities with insurance firms, the federal government, or local government.

Required Mathematics Credits — 30 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 305 Mathematics of Finance	3
MATH 350 Elementary Probability Theory	3
MATH 351 Elementary Statistics Theory	3
MATH 375 Elementary Numerical Analysis	3
MATH 437 Mathematical Modeling	3

Bachelor of Arts in Mathematics Emphasis in Applied Statistics

Program Requirements

Required Mathematics credits	24
Statistics Core credits	10
Required elective credits (minimum)	5
General Education credits	40
Elective credits	41
Total credits required for this degree	120

Expanded scientific, statistical and mathematical knowledge, combined with growing needs in technological as well as social areas, have created increased demands for individuals trained in applied statistics.

This program focuses on statistical foundations and their applications to problems in varied disciplines, e.g., business, agriculture, medicine, law, literature, psychology and other social sciences.

Completion of this degree will prepare the student for positions involving the design and analysis of statistical models in such areas as the military, governmental, industrial, environmental and social settings and for additional graduate study in the areas of applied statistics and operations research.

Required Supporting Credits — 26 semester hours

<i>Required Statistics Credits — 8 semester hours</i>	
STAT 311 Basic Statistical Methods	4
STAT 495 Topics in Applied Statistics: (e.g. Time Series Operations Research)	4
<i>Required Finance Credits — 6 semester hours</i>	
BAFN 231 Legal Environment of Business	3
BAFN 340 Principals of Risk and Insurance	3
<i>Required Economics Credits — 6 semester hours</i>	
ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
<i>Required Computer Science Credits — 6 semester hours</i>	
CG 115 FORTRAN 77 Programming	3
CS 395 Special Topics in Computer Science: (APL)	3

Required Mathematics Credits — 24 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 350 Elementary Probability Theory	3
MATH 351 Elementary Statistics Theory	3

Statistics Core Credits — 10 semester hours

STAT 311 Basic Statistical Methods	4
STAT 406 Multiple Linear Regression	3
STAT 409 Sampling Techniques	3

Required Elective Credits — 5 semester hours (minimum)

MATH 335 Differential Equations I	3
STAT 495 Topics in Applied Statistics	1-4
MATH 437 Mathematical Modeling	3

Note

Other elective courses may be taken with the approval of the advisor.

Bachelor of Arts in Mathematics Emphasis in Computer Science

Program Requirements

Required Mathematics credits	27
Required Computer Science credits	30
General Education credits	40
Elective credits	23
Total credits required for this degree	120

This emphasis provides the student with an opportunity to obtain specialization within the mathematics major. It extends student knowledge of mathematical applications by focusing on computer sciences, including engineering software, methods of computer science, and elements of computer hardware.

Required Mathematics Credits — 27 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 350 Elementary Probability Theory	3
MATH 351 Elementary Statistics Theory	3
MATH 375 Elementary Numerical Analysis	3

Required Computer Science Credits — 30 semester hours

CS 101 Introduction to Computer Science	3
CS 102 Structured Analysis, Design, and Programming	3
CS 200 Object-Oriented Analysis, Design, and Programming	3
CS 222 Computer Architecture/Organization	3
CS 301 Algorithms and Data Structures	3
CS 302 Programming Languages	3
CS 350 Software Engineering	3
CS 440 Operating Systems	3
CS 442 Networking	3
CS 497 Senior Project	1-8

Bachelor of Arts in Mathematics Emphasis in Elementary/Middle School Teacher Education

Program Requirements

Required Mathematics credits	43
General Education credits:	
Regular	40
PTEP Requirements	42
Total credits required for this degree	125

This program is designed for prospective elementary/middle school teachers who are interested in mathematics and the teaching of mathematics. The content is designed to give students in-depth, yet well-rounded and relevant experience in mathematics. Pedagogical content knowledge is emphasized throughout the program. Graduates of this program are prepared to assume leadership roles in the curriculum development and teaching of mathematics at the elementary/middle school level.

Required Mathematics Credits — 43 semester hours

<i>Select one of the following:</i>	
CG 110 BASIC Programming	3
CG 120 Pascal Programming	3
CG 125 LOGO Programming	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 181 Fundamentals of Mathematics I	3
MATH 182 Fundamentals of Mathematics II	2
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 283 Informal Geometry	2
MATH 341 Introduction to Modern Geometry	4
MATH 391 Introduction to Number Theory	3
MATH 395 Topics in Mathematics for Teachers	3
MATH 464 Introduction to History of Mathematics	3
MED 487 Technology, Manipulatives and NCTM Standards	3
STAT 150 Introduction to Statistical Analysis	3

Notes

Students majoring in mathematics who plan to teach in the elementary/middle school must complete the requirements as stated in this Bulletin for licensure as an elementary/middle school teacher.

For admission to PTEP the student must:

- have completed at UNC at least two content courses that may count toward the MATH major;
- have a GPA of at least 2.5 in content courses taken at UNC that count toward the major.

For admission to student teaching, the student must have:

- satisfactorily completed at least 30 semester hours of coursework, which may count toward the math major;
- satisfactorily completed the appropriate methods courses and clinical experience;
- a GPA of at least 2.5 in courses taken at UNC, which may count toward the major.

The GPA in content courses will be computed by the Department of Mathematical Sciences according to procedures approved by the departmental faculty that are in place at the time of the student's application for admission to PTEP, or to student teaching, or for graduation.

It is recommended that students take MED 272, Mathematics Tutoring, for two semesters.

It is recommended that students take MATH 341, Introduction to Modern Geometry, before taking MATH 464.

Content courses that may count toward the major are those mathematics, statistics and/or computer courses specified in the Bulletin as required courses for the major, or as program electives in the major.

Bachelor of Arts in Mathematics Emphasis in Liberal Arts

Program Requirements

Required Mathematics credits	45
General Education credits	40
Elective credits	35
Total credits required for this degree	120

This program permits students to acquire the standard concepts of undergraduate mathematics including calculus, linear and abstract algebra, discrete mathematics, probability and statistics.

A graduate of this program is prepared to enter a graduate program in mathematics or some other discipline such as statistics. A graduate may also begin a career in a variety of quantitative settings, including branches of engineering, physical and social science, finance and management, law and medicine.

Bachelor of Arts in Mathematics Emphasis in Secondary Teacher Education

Program Requirements

Required credits	43
General Education credits	40
PTEP Requirements	37-39
Total credits required for this degree	120-122

This program prepares students to teach mathematics, such as arithmetic, algebra, geometry, trigonometry and mathematical analysis and applications at the secondary school level (grades 7-12).

Students entering this program are expected to have the equivalent of four years of high school mathematics that will enable them to begin a study of calculus; students without these prerequisites may be required to take additional courses in algebra and trigonometry before beginning the calculus sequence.

Graduates of this program are prepared and will be qualified for licensure to teach mathematics in grades 7-12 in the state of Colorado. The program also prepares students for graduate study in mathematics education.

Required Credits — 43 semester hours

CG 120 Pascal Programming	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 321 Introduction to Abstract Algebra	4
MATH 341 Introduction to Modern Geometry	4
MATH 350 Elementary Probability Theory	3
MATH 351 Elementary Statistics Theory	3
MATH 437 Mathematical Modeling	3
MATH 464 Introduction to History of Mathematics	3
MED 441 Methods of Teaching Mathematics	3

Required Mathematics Credits — 45 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 321 Introduction to Abstract Algebra	4
MATH 335 Differential Equations I	3
MATH 350 Elementary Probability Theory	3
MATH 351 Elementary Statistics Theory	3
MATH 431 Basic Analysis I	4
MATH 432 Basic Analysis II	4
MATH 460 Introduction to Complex Analysis	3
MATH 495 Topics in Mathematics	3

Notes

Students must meet all requirements of the Professional Teacher Education Program as specified in this Bulletin.

For admission to PTEP, the student must:

- have completed MATH 131 and 132 (with a grade of "C" or better);
- have completed at UNC at least two content courses that may count toward the Math major;
- have a GPA of at least 2.5 in all content courses taken at UNC that may count toward the major.

For admission to Student Teaching, the student must have:

- satisfactorily completed at least 30 semester hours of content courses that may count toward the math major, including: MATH 221, 321 and 341;
- satisfactorily completed MED 441, STEP 262 and 363;
- a GPA of at least 2.5 in content courses taken at UNC that may count toward the major.

The GPA in the content courses will be computed by the Department of Mathematical Sciences according to procedures approved by the departmental faculty that are in place at the time the student's application for admission to PTEP, or to student teaching, or for graduation.

Content courses that may count toward the major are those mathematics, statistics and/or computer courses specified in the Bulletin as required courses for the major, or as program electives in the major.

It is recommended that students take MED 272, Mathematics Tutoring, for two semesters.

It is recommended that students take MATH 341, Introduction to Modern Geometry, before taking MATH 464.

Master of Arts in Mathematics Emphasis in Liberal Arts

Program Requirements

Complete the required credits specified here17
Complete program electives specified here13

The foci of this program are the core areas of algebra and analysis with specialization or breadth available through electives.

A graduate of this program may continue graduate work in mathematics or some other discipline such as statistics. A graduate may also enter a career making use of the knowledge and skills developed in the selected courses; career potential exists in industrial settings, business and governmental service.

Admission

In addition to meeting the admission requirements of the Graduate School, students must have:

- an undergraduate major in mathematics
- an essay of approximately 500 words addressing their interest in the Master of Arts in Mathematics: Emphasis in Liberal Arts degree program and their educational goals.

Master of Arts in Mathematics Emphasis in Teaching

Program Requirements

Complete the required credits specified here15
Complete program electives specified here15

This program is designed to prepare teachers to be experts in their own classroom. Upon finishing this program they should be able to teach the content of mathematics, assume leadership roles in mathematics curriculum within their schools, and read and understand the professional literature relating to the teaching and learning of their discipline. The emphasis is on preparing teachers for the 21st century with a dynamic and individualized program of study.

Admission

Generally a B.A. in mathematics or mathematics education with strong mathematics courses is required for admission to this program. Students without the B.A. in mathematics are advised to consult the department for a list of recommended undergraduate courses they should take before entering the program.

Students must submit an essay of approximately 500 words addressing their interest in the Master of Arts: Emphasis in Teaching Program and their educational goals.

Required Credits — 15 semester hours

MATH 528 Discrete Mathematics3
MATH 534 Continuous Mathematics3
MATH 543 Modern Geometry3
MED 600 Research: Math Education3
STAT 550 Applied Probability and Statistics3
Note that MED 600 satisfies the Graduate School requirements, Introduction to Graduate Studies.

Required Credits — 17 semester hours

MATH 523 Modern Algebra I3
MATH 525 Linear Algebra I3
MATH 540 Introduction to Topology3
MATH 545 Introductory Analysis3
MATH 560 Introduction to Complex Variables3
MATH 510 Seminar in Mathematics2

Required Elective Credits — 13 semester hours

Electives must have the approval of the advisor. Electives must be selected from 500-600 level MATH or STAT courses not including those designed for the Master of Arts: Teaching Emphasis (Exception: One of MATH 528 or MATH 529 may be selected as an elective).

Notes

Two semester hours of MATH 510 satisfy the Graduate School requirement, Introduction to Graduate Studies.

The departmental comprehensive examination will consist of two two-hour written examinations over the required sequences MATH 523 - MATH 525 and MATH 540 - MATH 545. An oral examination over the program up to two hours in length will be given upon successful completion of the written comprehensive.

Elective Credits — 15 semester hours

At least five semester hours must be selected from group A and at least six semester hours must be selected from group B.

Group A

MATH 520 Functions and Equations2
MATH 521 Vectors and Matrices2
MATH 529 Mathematical Problem Solving2
MATH 537 Mathematical Modeling3
MATH 591 Abstract Algebra and Number Theory3

Group B

MED 528 Teaching Discrete Mathematics2
MED 534 Teaching Algebra and Trigonometry2
MED 543 Teaching Geometry2
MED 550 Teaching Probability and Statistics2
MED 595 Teaching Advanced Topics in Secondary Mathematics2
MED 673 Preparation of Mathematics Specialists in Grades K-82

Additional electives may be chosen from courses offered by the department or other departments with the approval of the student's advisor.

Comprehensive Examinations

A student may select either one of the following options to satisfy the departmental comprehensive examination requirement. Normally, at least three faculty members will be involved in judging whether or not the selected option has been completed satisfactorily.

- Option 1. A written examination over two of the four required content courses (student's choice) and another over MED 600 and over one other course from Group B above. Up to two hours of oral examination will be given upon successful completion of the written examination.
- Option 2. Development of a curriculum module incorporating mathematical and pedagogical content of the program. This module must be carefully developed and written in acceptable format and a copy filed with the department. In addition, the student must make a two hour oral presentation over the module.

Doctor of Philosophy in Educational Mathematics

Program Requirements

Complete content courses and seminars in mathematics specified here	26
Complete courses and seminars in education specified here	20
Complete dissertation work	16
Additional electives	6
Complete research tool requirements to total	68

This program offers an innovative approach to mathematical pedagogy. A basic tenet of the program is that mathematical content is fundamental to methods, research and reform in mathematics education. The program has three major strands: mathematics, mathematics education, and cognition.

Graduates of the program will be prepared to lead the reform of mathematics education. They will be able to teach mathematics at several levels; perform research; and administer and supervise the reform of mathematics education.

Admission

Applicants should possess a master's degree in mathematics or mathematics education, or a strong bachelor's degree in mathematics. It is expected that students will have had a senior level or beginning graduate level course in each of abstract algebra, linear algebra, point-set topology, and real or complex analysis. Applicants not having this preparation may be required to take additional courses to prepare them for the coursework in the program. Also required is an essay of approximately 500 words addressing the applicant's interest in the Doctor of Philosophy in the Educational Mathematics program and the applicant's educational goals.

Content Core — 26 hours

<i>A. Minimum of 18 hours from the following</i>	
Students will select courses with these restrictions	18
a) Four of the five initial courses of the sequences must be completed.	
b) At least one of the first three sequences must be completed.	
c) At least one of the last three sequences must be completed.	
d) A minimum of two sequences must be completed.	
MATH 635 Real Analysis	3
and	
MATH 736 Topics in Analysis	3
MATH 633 Geometric Analysis	3
and	
MATH 644 Differential Geometry	3
MATH 632 Complex Analysis	3
and	
MATH 691 Number Theory	3
MATH 623 Topics in Advanced Algebra	3
and	
MATH 727 Representation Theory	3
MATH 678 Mathematical Logic	3
and	
MATH 728 Topics in Discrete Mathematics	3
<i>B. MATH 700 Seminar</i>	2
<i>C. Additional 6 hours selected from the courses listed above; and from the following</i>	
MATH 609 Symmetry in Mathematics	3
MATH 664 Difference Equations and Chaos	3
MATH 695 Special Topics	3
at most one of	
MATH 525 Linear Algebra	3
MATH 529 Mathematical Problem Solving	2
MATH 540 Introduction to Topology	3
MATH 564 Topics in History of Mathematics	3

Educational Core — minimum 20 semester hours

<i>A. Required Courses — 10 hours</i>	
MED 600 Survey of Research in Mathematics Education	3
MED 700 Advanced Seminar: Cognitive Processes	3
MED 701 Mathematical Research Design and Analysis	3
MED 710 Seminar in Post-Secondary Mathematics Teaching	1

B. Elective Courses — 10 hours

MED 622 Directed Studies	1-3
MED 630 Technology in Mathematics Education	3
MED 673 Preparation of Mathematics Education Specialists for Grades K-8	3
MED 674 Teaching and Learning Mathematics on the Secondary School Level	3
MED 675 Teaching and Learning Mathematics on the Post-Secondary School Level	3
MED 678 Special Topics in Mathematics Education	1-3
MED 750 Philosophy of Educational Mathematics	3
MED 765 Mathematical Structures	3

Dissertation — 16 semester hours

MATH 797 Doctoral Research Proposal	4
MATH 799 Doctoral Dissertation	12

Additional Electives — 6 hours

Electives in this category can include any approved 600 or 700 level courses or any two approved additional 500 level courses. Courses taken for one of the two research tools may be counted for these electives.

Research Tools

Credits to satisfy the first research tool count as elective hours for the 67 hour total; credits for the second research tool do not count in that total. A student must complete research tool option A; and may select any one of the remaining three options.

Required

<i>A. Applied Statistics and Research Methods — 10 hours</i>	
SRM 502 Applied Statistics II (or approved equivalent)	4
SRM 604 Advanced Experimental Design (or approved equivalent)	3
MED 701 Educational Mathematics Research	3

Select One Additional Tool

B. Computer Science — Student's doctoral committee will approve combination of computer experience and/or coursework to satisfy computer proficiency.

C. Foreign Language — ETS exam result at or above 50th percentile in one of the following foreign languages: German, French, Russian. Other languages with the approval of the student's doctoral committee.

D. Collateral Fields — Contact the departmental graduate coordinator for a detailed list of approved courses in cognition and instruction; measurement and evaluation; psychology and human development; and curricula. The list currently includes 14 EPRE courses and 3 MED courses.

Notes

Electives must have the approval of the student's advisor and doctoral committee.

MED 701 may be used as a substitute for the Graduate School's SRM 700 requirement.

MED 710 is normally taken the first semester of a student's program

The department written comprehensive examination will consist of two four-hour exams over two completed sequences (student's choice) from the mathematics content core; and a three-hour exam over the courses MED 600, MED 700, MED 701, and a list of required readings. The oral examination will be given upon successful completion of the written examination, will cover the entire program of the candidate, and may be up to two hours in length.

A student in this program is required to write a scholarly dissertation. Dissertation topics may range from mathematics with pedagogical applications to topics in educational mathematics such as cognitive processes, educational reform and instructional issues.

Bachelor of Arts in Medical Technology

Program Requirements

Required Medical Technology credits	30
Required supporting credits	45-46
Required elective credits	3-4
General Education credits:	
Specified	12-13
Remaining	27-28
Total credits required for this degree	120-123

This program is administered by the Department of Chemistry and Biochemistry.

The program is designed to prepare students as practicing Medical Technologists (Clinical Laboratory Scientists) by providing them with the background courses in biology, chemistry and mathematics along with the professional medical technology courses necessary to meet or exceed the requirements of the American Society of Clinical Pathologists, ASCP.

Upon successful completion of the program, students will receive a Bachelor of Arts Degree in Medical Technology and be prepared to take the required ASCP Board of Registry exam and the optional National Certification Agency for Medical Laboratory Personnel exam. Fees required. After passing the exams, career opportunities will be found in hospitals, physicians' offices, private laboratories, and research organizations; as technical representatives for laboratory supply companies; or as educators of future medical technologists.

Required Medical Technology Credits — 30 semester hours

MTEC 410 Clinical Chemistry	3
MTEC 411 Chemistry Laboratory I	2
MTEC 412 Chemistry Laboratory II	2
MTEC 413 Chemistry Laboratory III	1
MTEC 430 Immunology-Immunohematology	2
MTEC 431 Immunohematology Laboratory I	2
MTEC 432 Immunohematology Laboratory II	1
MTEC 440 Medical Microbiology	3
MTEC 441 Microbiology Laboratory I	2
MTEC 442 Microbiology Laboratory II	3
MTEC 460 Urinalysis and Clinical Microscopy	1
MTEC 490 Hematology-Coagulation	3
MTEC 491 Hematology Laboratory I	2
MTEC 492 Hematology Laboratory II	2
MTEC 493 Hematology-Serology-Electrophoresis Laboratory III	1

Required Supporting Credits — 45-46 semester hours

<i>Biology Credits: 16 semester hours</i>	
BIO 111 Survey of Organismal Biology	5
BIO 351 Microbiology	4
ZOO 341 Human Anatomy	3
ZOO 350 Human Physiology	4

Chemistry Credits: 26-27 semester hours

CHEM 112 Principles of Chemistry II	5
or	
CHEM 115 General Chemistry II	4
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 481 General Biochemistry I	3
CHEM 482 General Biochemistry II	3
BCHM 381 Immunology	2

Business Credits: 3 semester hours

BAMG 350 Management	3
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Required Elective Credits — 3-4 semester hours

Biology Credits: 3-4 semester hours

One elective course in biology is required and must come from this list.

BIO 220 Genetics	3
ZOO 333 General Parasitology	4
BIO 458 Diagnostic Microbiology	4

General Education, Specified — 12-13 semester hours

Category 2 — Mathematics

MATH 124 College Algebra	4
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Category 6 — Science and Mathematics

BIO 110 Principles of Biology	4
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Select one of the following:

CHEM 111 Principles of Chemistry I	5
CHEM 114 General Chemistry I	4

Note that MATH 124, BIO 110 and CHEM 111 or CHEM 114 will also be counted as part of the major requirements. A course in scientific/technical writing is recommended to complete the Category 1b — Intermediate Composition requirement.

Notes

Students completing the required biology courses including the biology elective above will be eligible for a minor in biology.

Students completing the required chemistry courses will be eligible for a minor in chemistry.

Before enrolling for the MTEC courses, a student must have completed all other required courses, maintained a minimum of a 2.7 GPA and be admitted to an ASCP accredited hospital program.

Students wishing to participate in the Honors Program should consult their advisors about general education selections and other requirements.

Bachelor of Arts in Philosophy

Program Requirements

Required Philosophy credits	24
Required elective credits	9
General Education credits	40
Required minor with minimum credits	18
Elective credits	29
Total credits required for this degree	120

Philosophy is the attempt to remain true to the spirit of the Socratic dictum: "The unexamined life is not worth living." It thus entails serious reflection on all our fundamental beliefs with an eye to the clarification of the concepts they involve and the discovery of reasons either for continuing to accept them or for giving them up as false.

The major in philosophy is designed to provide both a solid undergraduate education in philosophy and a foundation for the further study of philosophy at the graduate level. It is an excellent major not only for students interested in philosophy itself but also for preprofessional students—especially, perhaps, for those who intend to study the law. Students may want to consider a double major because of the ways the study of philosophy can enhance one's ability to investigate fundamental issues in other fields.

Required Philosophy Credits — 24 semester hours

PHIL 240 Formal Logic I	3
PHIL 241 Formal Logic II	3
PHIL 260 History of Ancient Philosophy	3

Bachelor of Arts in Philosophy Emphasis in Ethics and Public Policy

Program Requirements

Required Philosophy credits	27
Required elective credits	9
General Education credits	40
Required minor with minimum credits	18
Elective credits	26
Total credits required for this degree	120

In a society that offers most of its students only technical training, those who wish to distinguish themselves in their chosen fields must pay special attention to questions of ethics and public policy. Many programs claim to teach students how to get where they are going. Applied philosophy teaches them to evaluate their goals—both those they set for themselves and those they set for their society. Applied philosophy is thus relevant to students' vocations in the traditional sense of the word: instead of being just the first in a series of trainings and retrainings designed to keep them abreast of recent developments in the changing job market, it provides students with a firm foundation for further learning, whatever their callings might be.

Required Philosophy Credits — 27 semester hours

Select one of the following	
PHIL 100 Introduction to Philosophy	3
or	
PHIL 105 Philosophical Perspectives on Current Issues	3
PHIL 220 The Nature of Legal Reasoning	3
PHIL 260 History of Ancient Philosophy	3

Pre-Law Program

Contact Paul Hodapp, Department of Philosophy, Weber House, 970-351-2572, for pre-law information and a list of recommended courses.

UNC offers an excellent pre-law program, as well as a number of pre-law activities for undergraduate students interested in pursuing a career in the legal profession. UNC has an active Pre-Law Society as a chartered organization. It should be noted, however, that like most American universities, UNC does not offer a pre-law major or minor; however, UNC does offer a Minor in Legal Studies.

PHIL 261 History of Modern Philosophy	3
PHIL 350 Ethics	3
PHIL 385 Epistemology	3
PHIL 390 Metaphysics	3
PHIL 495 Advanced Seminar	3

Required Elective Credits — 9 semester hours

Eligible electives include all other PHIL prefix courses.

Notes

At least 50 percent of the courses taken to complete the major must be upper division courses, i.e., courses offered at the 300 or 400 level.

Electives should be chosen in consultation with the major advisor. No more than 6 credit hours of PHIL 497 may be counted toward the major.

A minor of at least 18 hours is required unless the philosophy major is part of a double major. The minor should be chosen in consultation with the major advisor.

In addition, the Department of Philosophy recommends that philosophy majors take at least two years of a foreign language—preferably French or German.

To graduate, students must complete both the department's assessment examination (administered in the Advanced Seminar, PHIL 495) and the department's major evaluation form.

PHIL 261 History of Modern Philosophy	3
PHIL 300 Topics in Philosophy*	3
PHIL 305 Ethics in Theory and Practice	3
PHIL 350 Ethics	3
PHIL 355 Social and Political Philosophy	3
PHIL 495 Advanced seminar I	3

* Specific offerings to be chosen in consultation with the major adviser.

Required Elective Credits — 9 semester hours

Coursework in philosophy and/or another discipline chosen in consultation with the major advisor.

Notes

A grade of "C" or better is required for all courses that count toward the major.

At least 50 percent of the courses taken to complete the major must be upper division courses, i.e., courses offered at the 300 or 400 level.

A minor of at least 18 hours is required unless the philosophy major is part of a double major. The minor should be chosen in consultation with the major advisor.

To graduate, students must complete both the department's assessment examination (administered in the advanced Seminar, PHIL 495) and the department's major evaluation form.

Law schools do not identify any specific major as most desirable, but they do require a bachelor's degree as a prerequisite for law school admission. Most pre-law programs are built around majors from the College of Arts and Sciences and from the College of Business Administration.

Bachelor of Arts in Physical Science Emphasis in Teaching

Program Requirements, Elementary Education

Required Physical Science credits	33
Required supporting credits	21-22
PTEP program	42
General Education credits:	
Specified	3
Included in Required Physical Science credits	15
Remaining	22
Total credits	121-122

Program Requirements, Middle School Education

Required Physical Science credits	33
Required supporting credits	21-22
PTEP program	40
General Education credits:	
Specified	3
Included in Required Physical Science credits	15
Remaining	22
Elective credits	0-1
Total credits	120

Program Requirements, Secondary Education

Required Physical Science credits	33
Required supporting credits	27
PTEP program	37
General Education credits:	
Specified	3
Included in Required Physical Science credits	15
Remaining	22
Total credits	122

A graduate with this degree and licensure at the elementary/middle school level could become a teacher or science coordinator at an elementary or middle school. A graduate with this degree and licensure at the secondary level could teach physical science at the junior high or high school level. This degree would also be useful in a rural or small private school system in which one teacher may be required to teach physics, chemistry and other sciences. Administered by the Physics Department.

A thesis is required. This could be a library study or a research project, and could be completed as part of PHYS 301, or by taking HON 451 or PHYS 470.

Required Credits — 33 semester hours

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
CHEM 331 Organic Chemistry I	5
CHED 495 Seminar in Teaching Chemistry	2
PHYS 220 Introductory Physics I	5
PHYS 221 Introductory Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 321 Elementary Modern Physics	3
PHYS 475 Seminar in Teaching Physics	2

Required Supporting Credits — 7 semester hours

AST 301 Classical Astronomy	3
BIO 110 Principles of Biology	4

Required Supporting Credits for Elementary and Middle School Licensure — 14 or 15 semester hours

MATH 125 Plane Trigonometry	3
or	
MATH 131 Calculus and Analytic Geometry I	4
SCED 470 Teaching Science in the Elementary School	3
ESCI 265 Earth Science Concepts for Elementary Teachers	3
BIO 265 Biological Science Concepts for Elementary Teachers	3
PHYS 422 Directed Studies: Lab Assistantship	2

Required Supporting Credits for Secondary School Licensure — 20 semester hours

MATH 131 Calculus and Analytic Geometry I	4
SCED 441 Methods of Teaching Secondary School Science	3
Elective in computer programming	3
Elective in Physics or Chemistry	3
Elective in Biology, selected from the following courses	3
BIO 111 Survey of Organismal Biology	
BIO 220 Genetics	
BOT 270 Economic Botany	
ZOO 245 Introduction to Human Anatomy	
Elective in Earth Science, selected from the following courses	4
GEOL 201 Physical Geology	
MET 205 General Meteorology	
OCN 200 General Oceanography	
OCN 201 Physical and Chemical Oceanography	
OCN 302 Geological and Biological Oceanography	

General Education, Specified — 3 semester hours

<i>Category 7a — Interdisciplinary</i>	
ENST 225 Energy and the Environment	3

Recommended Courses

MATH 132 Calculus and Analytic Geometry II	4
or	
MATH 395 Topics in Mathematics for Teachers	3

Notes

PTEP is required for this program. The student should take PTEP program specific to the grade level desired for licensure. All Physical Science majors seeking elementary licensure are exempt from taking SCI 265 as a general education requirement. All electives require approval of the student's advisor.

PHYS 240 and PHYS 241 may be substituted for PHYS 220 and PHYS 221.
PHYS 345 may be substituted for PHYS 321. These substitute courses require additional calculus.

To complete this major in four years would require careful planning of one's schedule.

Bachelor of Arts in Physics Emphasis in Computer Science

Program Requirements

Required Physics credits	51
Required supporting credits	35
Required elective credits	6
General Education credits:	
13 credits already included in requirements above	
Remaining	27
Elective credit	1
Total credits required for this degree	120

The computer science emphasis of the physics major focuses on the connection and mutual interaction of physics, electronics and computer science through a combination of courses in these fields. This emphasis is strongly oriented toward the physical construction and interfacing of computers. Students can take additional courses in programming and computer architecture to broaden their backgrounds.

Upon completion of this emphasis, students will have a solid foundation of knowledge in physics, electronics and computer science. They will be prepared for employment in industry or research laboratories and for graduate study in these fields.

A thesis, completed as part of PHYS 470, is required for this major.

Required Physics Credits — 51 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 320 Mathematics Applications	3
PHYS 321 Elementary Modern Physics	3
PHYS 340 Mechanics I	3

Bachelor of Arts in Physics Emphasis in Engineering Physics

Program Requirements

Required Physics credits	62
Required supporting credits	28
Required elective credits	3
General Education credits:	
13 credits already included in requirements above	
Remaining	27
Total credits required for this degree	120

The Engineering emphasis of the BA in Physics provides practical application of the theories and methods of physics. Students take more courses in the theory of physics than they would in the typical engineering curriculum and more courses in applications related to the engineering fields than they would in the traditional physics degree.

Graduates will be well prepared for engineering-type positions in industry and research laboratories or for graduate work in engineering or physics-related fields. Because of the strong emphasis on both theory and applications, graduates can quickly assimilate rapid changes in these fields.

A thesis, completed as part of PHYS 470, is required for this major.

Required Physics Credits — 62 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 310 Machining Skills	2
PHYS 320 Mathematical Applications	3
PHYS 321 Elementary Modern Physics	3
PHYS 340 Mechanics I	3
PHYS 341 Electricity and Magnetism I	3
PHYS 343 Alternating Current and Electronics	4
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4

PHYS 341 Electricity and Magnetism I	3
PHYS 343 Alternating Current and Electronics	4
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4
PHYS 440 Mechanics II	2
PHYS 420 Thermodynamics and Statistical Physics	3
PHYS 441 Electricity and Magnetism II	2
PHYS 443 Electronic Systems and Controls	4
PHYS 470 Senior Research	4

Required Supporting Credits — 35 semester hours

CG 115 FORTRAN 77 Programming	3
or	
CG 120 Pascal Programming	3
CHEM 111 Principles of Chemistry I	5
CS 102 Structured Programming	3
CS 200 Object-Oriented Analysis Design and Programming	3
CS 222 Computer Architecture/Organization	3
CS 480 Graphics	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
MATH 375 Elementary Numerical Analysis	3

Required Elective Credits — 6 semester hours

Electives in Computer Science numbered above 300 (consent of advisor), 6

Note
HON 451 may be substituted for PHYS 470. In either case a research advisor from the Physics department is required. CS 101 is waived as a prerequisite to CS 102 if the student takes CG 115 or CG 120 before CS 102.

PHYS 420 Thermodynamics and Statistical Physics	3
PHYS 440 Mechanics II	2
PHYS 441 Electricity and Magnetism II	2
PHYS 443 Electronic Systems and Controls	4
PHYS 445 Nuclear and Condensed Matter Physics	5
PHYS 447 Electro-optics	4
PHYS 470 Senior Research	4

Required Supporting Credits — 28 semester hours

Select one of the following:

CG 115 FORTRAN 77 Programming	3
or	
CG 120 Pascal Programming	3
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
MATH 335 Differential Equations I	3

Required Elective Credits — 3 semester hours

Elective Credits in Mathematics (consent of advisor)
 3 |

General Education, Specified (recommended)

Category 7a — Interdisciplinary

ENST 225 Energy and the Environment	3
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Notes
Students planning to enter graduate school in physics are strongly advised to take PHYS 449, Quantum Mechanics II.

HON 451 may be substituted for PHYS 470. A research advisor in the Physics department is required in either case.

Bachelor of Arts in Physics Emphasis in Liberal Arts

Program Requirements

Required program/major credits	48
Required supporting credits	20
Required upper division elective credits	12
General Education credits:	
13 credits already included in requirements above	
Remaining	27
Elective credits	13
Total credits required for this degree	120

This emphasis focuses on the main laws and principles of physics through a basic core of physics and support courses and provides flexibility for the student by requiring a minimum of emphasis courses. Students can take a variety of elective courses at the junior/senior level to tailor the program toward their future goals.

Graduates have a solid foundation in physics for pursuing their individual career goals, including employment in industry and research laboratories and graduate studies in physics, engineering, health or the environment.

A thesis, completed within PHYS 301, 422 or 470 or HON 451 is required for this major.

Required Physics Credits — 48 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 320 Mathematical Applications	3
PHYS 321 Elementary Modern Physics	3
PHYS 340 Mechanics I	3
PHYS 341 Electricity and Magnetism I	3

PHYS 343 Alternating Current and Electronics	4
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4
PHYS 420 Thermodynamics and Statistical Physics	5
PHYS 440 Mechanics II	2
PHYS 441 Electricity and Magnetism II	2
PHYS 445 Nuclear and Condensed Matter Physics	5

Required Supporting Credits — 20 semester hours

CHEM 111 Principles of Chemistry I	5
CG 115 FORTRAN 77 Programming	3
or	
CG 120 Pascal Programming	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4

Upper Division Required Elective Credits — 12 semester hours

Elective Credits in Physics (consent of advisor)	6
Elective Credits in Mathematics (consent of advisor)	6

General Education, Specified (recommended)

<i>Category 7a — Interdisciplinary</i>	
ENST 225 Energy and the Environment	3

Notes

Students planning to enter graduate school in physics are strongly advised to take PHYS 449, Quantum Mechanics II.

PHYS 470 Senior Research (2-4 semester hours) is recommended.

PHYS 340 Mechanics I	3
PHYS 341 Electricity and Magnetism I	3
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4
PHYS 420 Thermodynamics and Statistical Physics	3
PHYS 440 Mechanics II	2
PHYS 441 Electricity and Magnetism II	2
PHYS 445 Nuclear and Condensed Matter Physics	5
PHYS 449 Advanced Quantum Mechanics	3

Required Supporting Credits — 36 semester hours

CHEM 111 Principles of Chemistry I	5
CG 115 FORTRAN 77 Programming	3
or	
CG 120 Pascal Programming	3
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
MATH 335 Differential Equations I	3
MATH 221 Elementary Linear Algebra	3
MATH 321 Introduction to Abstract Algebra	4
MATH 460 Introduction to Complex Analysis	3
MATH 495 Topics in Mathematics (Math Meth Phys)	3

Upper Division Required Elective Credits — 10 semester hours

Elective Credits in Physics (consent of advisors)	4
Elective Credits in Mathematics (consent of advisors)	6

Bachelor of Arts in Physics Emphasis in Mathematical Physics

Program Requirements

Required Physics credits	47
Required supporting credits	36
Required elective credits	10
General Education credits:	
13 credits already included in requirements above	
Remaining	27
Total credits required for this degree	123

This program, offered through the cooperation of the physics and mathematics departments, focuses on the laws, principles and mathematical foundations of physics. The student is required to have an advisor in each of the Departments of Physics and Mathematics.

This emphasis is an excellent preparation for graduate school in mathematics, applied mathematics, physics, mathematical physics or other similar programs. It is also excellent preparation for many types of positions in industry or in research laboratories.

A thesis, completed within PHYS 301, 422 or 470 or HON 451, is required for this major.

Required Credits — 47 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 320 Mathematical Applications	3
PHYS 321 Elementary Modern Physics	3

Bachelor of Arts in Physics Emphasis in Teaching

Program Requirements

Required Physics credits	38
Required supporting credits	28
Required elective credits	8
General Education credits:	
15 credits already included in requirements above	
Remaining	25
PTEP program	37-39
Total credits required for this degree	136-138

The program emphasizes the laws and principles of physics and the communication of these to high school students. The degree also contains enough breadth to meet the qualifications to teach physics and other sciences at the junior and senior high school levels.

The B.A. in Physics-Teaching prepares the candidate to teach physics and other sciences at the secondary level (grades 7-12). With additional physics and mathematics courses, students could qualify for graduate study in physics or for employment in industry or governmental research laboratories.

A thesis, completed as part of PHYS 301, 422 or 470 or HON 451, is required for this degree.

Required Credits — 38 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 301 Seminar in Physics	1
PHYS 320 Mathematical Applications	3
PHYS 321 Elementary Modern Physics	3
PHYS 340 Mechanics I	3
PHYS 341 Electricity and Magnetism I	3
PHYS 343 Alternating Current and Electronics	4
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4
PHYS 475 Seminar in Teaching Physics	2

Pre-Engineering Program

The pre-engineering program is designed for students who intend to enter an engineering field. Many of these students take approximately two years of coursework at UNC before transferring to a university that offers a degree in engineering. Alternatively, after their second year, students may elect to complete the Engineering Physics Emphasis B.A. program or other science or math program at UNC.

On successful completion of this program, the student will be eligible to transfer to an engineering school in Colorado or elsewhere, or transfer to another science or mathematics program at UNC.

Required Credits

CHEM 111 Principles of Chemistry I	5
CG 115 FORTRAN 77 Programming	3
or	
CG 120 Pascal Programming	3
ENG 122 College Composition	3

Required Supporting Credits — 28 semester hours

AST 301 Classical Astronomy	3
BIO 110 Principles of Biology	4
CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
SCED 441 Methods of Teaching Secondary School Science	3
(Taken concurrently with EDLS 363 Clinical Experience: Secondary)	

Required Elective Credits — 8 semester hours

Elective Credits in Computer courses (consent of advisor)	3
Elective Credits in Biological Sciences (consent of advisor)	2
Elective Credits in Earth Sciences (consent of advisor)	3
<i>Recommended course</i>	
MATH 233 Calculus and Analytical Geometry III	4

General Education, Specified (recommended)

<i>Category 7a — Interdisciplinary</i>	
ENST 225 Energy and the Environment	3

Notes

PTEP is required for this program.

The courses required above will satisfy general education requirements for skills 2 and for content category 6 as well as 5 hours of general education electives. Students will need to average about 16.5 hours per semester to complete this degree in four academic years. Careful planning of schedules with one's advisor is essential.

MATH 131 Calculus & Analytic Geometry I	4
MATH 132 Calculus & Analytic Geometry II	4
MATH 233 Calculus & Analytic Geometry III	4
PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 321 Elementary Modern Physics	3

Notes

Elective courses should be carefully selected in consultation with one's advisor. Consult for optimum transfer of credits to an engineering school. Some engineering fields require a second semester of chemistry.

Students in this program register under a physics major with pre-engineering as a second major and must have an advisor in the physics department.

Bachelor of Arts in Political Science

Program Requirements

Required Political Science credits	11
Required supporting credits	18
Required elective credits	25
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Elective credits	32
Total credits required for this degree	120

Political Science is the study of that activity whereby public policy is made and implemented. Political scientists are, therefore, concerned with all those ideas, institutions, processes and policies, which constitute that activity such as equality, legislatures, political socialization and welfare. The department emphasizes the development of undergraduate writing skills; it also offers qualified students opportunity to complete an internship in organizations such as Weld County government, the United States Congress and the Colorado governor's office. The department values serious discussion of political issues among faculty and students and conducts many classes as discussions rather than as lectures.

The Department of Political Science labors in the cause of citizenship by providing a foundation of information upon which informed judgments can be made by developing the analytical skills necessary to think critically and by promoting reflection about values. The department also seeks to prepare students in this way for professional success in local, state and federal government, the law, journalism, public relations, teaching and business. Graduates of the program are also qualified for graduate work in various emphases of political science.

Required Political Science Credits — 11 semester hours

PSCI 100 United States National Government	3
PSCI 105 Introduction to Political Science	3
PSCI 150 Research in Political Science	2
<i>Select one of the following:</i>	
PSCI 405 Problems in American Politics	3
PSCI 415 Problems in Comparative Politics	3
PSCI 425 Problems in International Relations	3
PSCI 435 Problems in Political Philosophy	3

Required Supporting Credits — 18 semester hours

HIST 100 Survey of American History from its Beginnings to 1877	3
HIST 101 Survey of American History from 1877 to the Present	3
HIST 120 Western Civilization from Ancient Greece to 1689	3
HIST 121 Western Civilization from 1689 to the Present	3
Note that any one of the four courses required above will satisfy the General Education requirement for a course in Category 4.	
ECON 103 Introduction to Economics: Macroeconomics	3
Note that this course will satisfy the General Education requirement for a course in Category 5.	
CG 105 Personal Computer Applications or a course on computer programming	3

Required Elective Credits — 25 semester hours

Select at least two courses from each of the following groups:

Group A — American Politics

PSCI 203 Colorado Politics	3
ENST 205 Environment, Politics and Law	2
PSCI 207 Women and Politics	2
PSCI 208 Introduction to Public Administration	3
PSCI 301 Electoral Politics in the United States	3
PSCI 302 Law-Making Process in the United States	3

PSCI 305 Politics of Education	3
PSCI 306 Constitutional Law	3
PSCI 392 Internship	3-10
PSCI 401 Public Policy in the United States	3
PSCI 402 Problems in American Politics	3
PSCI 422 Directed Studies	1-3
<i>Group B — International Relations</i>	
PSCI 220 Introduction to International Relations	3
PSCI 320 American Foreign Policy	3
PSCI 321 War and Peace	3
PSCI 325 Conflict in the Middle East	3
PSCI 328 International Law and Organizations	3
PSCI 422 Directed Studies	1-3
PSCI 425 Problems in International Relations	3
<i>Group C — Political Philosophy</i>	
PSCI 331 Political Philosophy I	3
PSCI 332 Political Philosophy II	3
PSCI 335 American Political Philosophy	3
PSCI 422 Directed Studies	1-3
PSCI 435 Problems in Political Philosophy	3
<i>Group D — Comparative Politics</i>	
PSCI 210 Politics in the European Community	3
PSCI 310 Politics of Central and East European States	3
PSCI 315 Comparative Public Policy	3
PSCI 318 Politics of the Developing States	3
PSCI 415 Problems in Comparative Politics	3
PSCI 422 Directed Studies	1-3

Note that while PSCI 405, 415, 425 or 435 may be counted as one of the two elective courses required for an elective group, the credit hours may not be counted toward the 25 semester hour elective requirement. Should a student take a second course from among those identified above, the credit hours earned will count toward the 25 semester hour elective requirement.

Majors in political science must, in addition to meeting the above requirements, satisfy the following:

- take the nationally standardized test administered by the Department in the senior year; and
- complete the student evaluation of the major questionnaire.

Notes

Political Science majors must pass with a grade of "C" or better all courses taken in political science. Students receiving a grade of "D" or lower in a course must retake the course and receive a grade of "C" or better.

Political Science majors must earn a cumulative grade point average of 2.5 or better over all political science courses taken in order to graduate.

You may take up to 10 hours in the Political Science Internship Program, but only a maximum of 6 hours can apply toward the political science major. Admission to the Internship Program is selective. Applications are available in the department office and must be submitted to the director, Internship Program, no later than the time of preregistration for the semester of the proposed internship. Students must have accumulated 12 hours in political science at time of application.

Students interested in licensure for teaching political science must major in social sciences rather than political science.

Qualified students are invited to enroll in the Honors Program in political science. Consult the director, Honors Program in Political Science.

Bachelor of Arts in Psychology

Program Requirements

Required Psychology credits	20
Required supporting credits	3-4
Required elective credits	20
General Education credits:	
7-8 credits already included in requirements above	
Remaining	32-33
Elective credits	36-37
Total credits required for this degree	120

Psychology is the scientific study of behavior. The goal of psychology is to understand the processes involved in actions, feelings, thoughts, and experiences. Psychologists study these processes in both humans and animals. Psychologists develop theories to explain behavior and to generate hypotheses that are tested through scientific, both quantitative and qualitative, research methods. Depending on the situation, psychologists may attempt to describe, explain, predict, and change behavior.

The Department of Psychology offers a quality, comprehensive, and coherent program. Students learn the research methods and core theories employed by psychologists. Students are also exposed to the diversity of psychology through a range of elective courses. The variety of courses offered permits students to choose a set of psychology courses that are related to their interests and career goals. All psychology students are given the opportunity to design, conduct, and write up their own research project. Students also participate in a field experience in which they work in a supervised psychology-related setting.

Psychology students develop transferable skills in several areas including research design and analysis, the ability to understand human behavior, recognition of and tolerance for diversity, report writing and presentation, establishing rapport in groups, and critical thinking. With these skills graduates gain employment in a wide variety of careers including educators, counselors, administrators, managers, personnel analysts, researchers (including market researchers), police and corrections officers, and sales people. Graduates also enter M.A. and doctoral programs in many areas of psychology and in rehabilitation, special education, business and social work. In recent years the majority of graduates from the M.A. programs have entered doctoral programs in psychology. Recent demographic analyses predict a continued high demand for individuals with a background in psychology.

Required Psychology Credits — 20 semester hours

PSY 120 Principles of Psychology	4
PSY 200 Psychological Statistics and Design	3
PSY 400 Research Design and Analysis	5
PSY 480 Physiological Psychology	5
PSY 491 Psychology Field Experience	3

Required Supporting Credits — 3-4 semester hours

Select one of the following:

BIO 110 Principles of Biology	4
ZOO 115 Human Biology	3
ZOO 245 Introduction to Human Anatomy Physiology	4

Required Elective Credits — 20 semester hours

Select one course from each of the following groups:

<i>Foundation Group</i>	
PSY 230 Human Growth and Development	4
PSY 265 Social Psychology	3
PSY 271 Psychological Tests and Measurements	3
<i>Clinical/Counseling Group</i>	
PSY 342 Cognitive and Behavioral Change: Theory, Assessment and Application	3
PSY 407 Introduction to Counseling Theories	3
PSY 455 Abnormal Psychology	3
<i>Diversity Group</i>	
PSY 370 Chicano Psychology	3
PSY 467 Psychology of Prejudice	3
PPSY 468 Psychology of Women	2
<i>Experimental Group</i>	
PSY 341 Principles of Learning	3
PSY 375 Sensation and Perception	3
PSY 440 Cognition	3
Psychology electives to bring to a total of, 20	

PSY elective denotes any psychology course with a PSY designation.

All PSY courses are listed in the Bulletin. You may take more than one course from the designated psychology "groups" with the additional semester hours going toward psychology elective credits.

Notes

Psychology majors must receive a grade of "C" or better (or S) in all REQUIRED courses in psychology (i.e., PSY 120, PSY 200, PSY 400, PSY 480 and PSY 491). Students receiving a grade of "D" or lower in a course must retake the course.

Students with a grade point average of 3.25 or better are invited to enroll in the Honors program in psychology. MIND courses may count for General Education. Consult the director of the Honors program in psychology. Qualified students are invited to apply for membership in PSI CHI, the national psychology honor society. Applications and qualifications are posted outside the psychology department office.

A maximum of 24 semester hours may be transferred to the major from other institutions.

Psychology students must have a minimum of 9 upper division credits (300-400 level) while in residence in order to graduate.

No minor is required for the psychology major.

Master of Arts in Psychology Emphasis in General Psychology

Program Requirements

Complete the required courses specified here35
Complete program electives specified here3

The master's program in psychology emphasizes the development of advanced research skills as well as expanding the breadth of knowledge in the various sub-specializations of psychology. The program culminates in a research project in which the student demonstrates scholarship while preparing an empirical study, a literature review, or a comprehensive course outline.

Students in the psychology master's program develop the requisite knowledge and skills for careers in research in a wide range of psychology career specializations and in community and junior college teaching.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the Graduate Record Examination and submit the scores before admission into the program.

Required Credits — 35 semester hours

SRM 603 Statistical Methods II3
SRM 610 Statistical Methods III3

PSY 550 Cognitive Development3
PSY 590 Seminar in History and Systems3
PSY 600 Graduate Research Methodology3
PSY 620 Assessment and Interviewing2
PSY 625 Principles of Neuropsychology3
PSY 627 Psychometrics3
PSY 643 Theories of Motivation3
PSY 664 Advanced Social Psychology3
PSY 699 Thesis6

Elective Credits — 3 semester hours (to complete a minimum of 38 semester hours in the program)

EPSY 530 Life Span Developmental Psychology3
EPSY 630 Child and Adolescent Psychology3
EPSY 631 Psychology of Youth, Adult and Aging3
EPSY 684 Advanced Seminar in Human Development3
EPSY 685 Advanced Seminar in Learning and Cognition3
PPSY 558 Abnormal Psychology3
PPSY 607 Theories of Counseling2
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology3
PPSY 660 Psychological Consultation: Theory and Practice2
PSY 582 Behavioral Genetics2

Master of Arts in Psychology Emphasis in Human Neuropsychology

Program Requirements

Complete the required courses specified here38

In addition to the core curriculum, which provides a systematic foundation in psychology, the emphasis includes coursework in behavioral and electrophysiological measurements of brain function.

The training provides skills necessary to carry out neuropsychological evaluations under appropriate supervision and to conduct advanced research in brain-behavior relationships.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the Graduate Record Examination and submit the scores before admission into the program.

Required Credits — 38 semester hours

SRM 603 Statistical Methods II3
SRM 610 Statistical Methods III3
PSY 550 Cognitive Development3
PSY 600 Graduate Research Methodology3
PSY 620 Assessment and Interviewing2
PSY 625 Principles of Neuropsychology3
PSY 626 Introduction to Neuropsychological Assessment3
PSY 627 Psychometrics3
PSY 643 Theories of Motivation3
PSY 664 Advanced Social Psychology3
PSY 680 Neuroscience Seminar3
PSY 699 Thesis6

Bachelor of Arts in Social Science

Emphasis in Liberal Arts, Elementary Education, and Middle School Education

Program Requirements

Required credits	16
Required elective credits	18
General Education credits:	
Specified	15
Remaining	25
Elective credits	9
Total credits required for this degree	120

This multidisciplinary B.A. program provides a general, theoretical and applied background in the social sciences and selected areas of the humanities. In particular the curriculum gives students a basis for thinking analytically about human behavior and the social environment with a broad introduction to the social sciences.

The program prepares students for careers in teaching elementary and middle school, research, program planning, graduate school, and law school. Examples of specific careers include teaching, human services positions such as agency management, probation counseling, environmental and social impact analysis, city planning, and local, state and federal government positions.

Liberal Arts

It is recommended that liberal arts majors choose electives that prepare them for managing complex organizations along with the research and rich computer statistical data base environments that many positions in the Social Sciences require.

Elementary Education

It is strongly recommended that students intending to teach in elementary education choose in the area of their "Required Electives" a minor in one of the four mandated state social studies content disciplines – Economics, Geography, History or Political Science. In addition, students should also utilize those disciplines for the "Required Elective Credits" classes.

Middle School Education

It is strongly recommended that students intending to teach in middle school education choose in the area of their "Required Electives" a minor in one of the four mandate state social studies content disciplines – Economics, Geography, History or Political Science. In addition, students should also utilize those disciplines for the "Required Elective Credits" classes.

Required Credits — 16 semester hours

ANT 100 Introduction to Anthropology	3
GEOG 100 World Geography	3
or	
GEOG 110 Geography of the United States and Canada	3
PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3
SOSC 470 Theory and Research in Social Science	3

Required Electives — 18 semester hours

Choose required electives to meet the requirements for a minor in one of the following discipline areas: anthropology, economics, geography, history, political science, psychology, or sociology. The minor chosen must include a research course. If a research course is not a departmental requirement for the minor, one must be taken from the offerings of that department. If a 100 level course required of the minor is taken to satisfy general education requirements an additional 300-400 level course must be chosen from the discipline of the minor.

Required Elective Credits — 9 semester hours

Choose from 300-400 level courses in anthropology, black studies, economics, environmental studies, geography, hispanic studies, history, political science, psychology, sociology, and women's studies. Students taking courses in black studies, environmental studies, hispanic studies, or women's studies should take 100 or 200 level prerequisites for the 300-400 level courses as part of their general education requirements. Elective courses may not be taken in the discipline selected for the required electives sequence.

General Education

Category 2 — Mathematics

STAT 150 Introduction to Statistical Analysis

Category 4 — Arts and Letters

HIST 100 Survey of American History from its Beginning to 1877

or

HIST 101 Survey of American History from 1877 to the Present

Category 5 — Social Sciences

ECON 103 Introduction to Economics: Macroeconomics

PSCI 100 United States National Government

Category 7b — Multicultural

One of the following:

AFS 100 Introduction to Black Studies

AFS 101 Crisis of Identity

HISP 102 Hispanic Cultures in the United States

MCS 101 Multiculturalism in the United States: Concepts and Issues

SOC 237 Sociology of Minorities

WS 120 Women and Men in Perspective

Notes

At least 50 percent of the courses taken to complete the major must be upper division courses, 300-400 level.

Students seeking licensure at the elementary level (grades K-6) or middle school level (grades 5-9) must meet all requirements as described in the Elementary Education Program and Middle School Certification Program sections of the Bulletin.

Bachelor of Arts in Social Science Emphasis in Social Studies-Secondary Licensure Program

Program Requirements

Required credits	15
Concentration Courses	27
General Education credits:	
Specified	12-13
Remaining	28-29
PTEP program	38
Total credits required for this degree	120-122

This multidisciplinary major provides students with the academic subject content background necessary for teaching social studies at the secondary (grades 7-12) level in Colorado. Upon successful completion of this program and the requirements of the Professional Teacher Education Program, students will qualify to be licensed to teach social studies at the secondary level.

General Education Requirements

<i>Category 4 — Arts and Letters</i>	
HIST 100 Survey of American History from Its Beginnings to 1877	3
<i>Category 5 — Social Sciences</i>	
ECON 103 Introduction to Economics: Macroeconomics	3
ANT 100 General Anthropology	3
or	
PSY 120 Principles of Psychology	4
or	
SOC 100 Principles of Sociology	3
<i>Category 7 — Interdisciplinary, Multicultural, and International Studies</i>	
HISP 102 Hispanic Cultures in the United States	3
or	
WS 101 Women in Contemporary Society	3
or	
AFS 101 Crises of Identity	3

Required Courses — 15 semester hours

ECON 105 Introduction to Economics: Microeconomics	3
GEOG 100 World Geography	3
HIST 101 Survey of American History from 1877 to Present	3
PSCI 100 U.S. National Government	3
SOSC 300 Social Studies Methods of Inquiry	3

Concentration Courses — 27 semester hours

In addition to the preceding General Education and Required courses, 27 semester hours must be taken in the Concentration disciplines of Economics, Geography, History, and Political Science distributed as follows:

- History 9 semester credit hours, of which 3 must be taken from history courses in Africa, Asia or Latin America.
- Economics 3-6 semester credit hours.
- Geography 6-9 semester credit hours.
- Political Science 6-9 semester credit hours.

Note that a minimum of 21 semester hours of the total 27 hours required in this concentration must be at the 300-400 level.

Notes

All requirements for the Professional Teacher Education Program, as described in this Bulletin, must be met. It is recommended that SOSC 300 be taken as soon as introductory classes are completed for the Concentration disciplines.

To be recommended for admission to PTEP the student must have completed a minimum of 12 semester hours in the major (at least 9 hours at UNC) encompassing three different social studies major disciplines and have a 2.75 grade point average or higher in those courses counting toward the major that were taken at UNC. Before being permitted to apply for student teaching, a social science major must have successfully completed at least 30 hours in the major, and have at least a 2.75 grade point average in those courses taken at UNC. Before being permitted to student teach, a social science major must have completed SOSC 300 and SOSC 341 with a grade of C or better.

If a minor is selected, no more than 6 semester hours of concentration courses can be counted toward fulfilling minor requirements.

Bachelor of Arts in Sociology Emphasis in Criminal Justice

Program Requirements

Required Sociology credits	27
Required elective credits	12
General Education credits:	
Specified	6
Remaining	34
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

The Bachelor of Arts degree in Sociology with an emphasis in Criminal Justice includes an examination of major criminal justice issues, juvenile delinquency, corrections and criminal law with the possibility for an internship experience with a social agency.

Graduates with this emphasis will be prepared for knowledgeable and productive citizenship roles, have an understanding of the criminal justice system and have knowledge and skills appropriate for careers in law enforcement, the court system or corrections. A foundation is provided for graduate work in Sociology.

Program Admission Requirements

Admission to the Sociology department as a major requires that the student complete a "Change of Major/Minor" form and a major application form (both available in the Sociology department office, Candelaria Hall 228).

Required Credits — 27 semester hours

SOC 141 Introduction to Criminal Justice	3
SOC 340 Juvenile Delinquency	3
SOC 346 Criminology	3
SOC 347 Sociology of Corrections	3

Bachelor of Arts in Sociology Emphasis in Family Studies

Program Requirements

Required Sociology credits	30
Required elective credits	9
General Education credits:	
Specified	6
Remaining	34
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

The Bachelor of Arts in Sociology with an emphasis in Family Studies includes an examination of major contemporary family issues and social policy. The research practicum experience with a social agency is the capstone course.

Graduates with this emphasis will be prepared for employment in a variety of state, local and private agencies involved in delivering family services. A foundation is provided for graduate work in Sociology.

Program Admission Requirements

Admission to the Sociology department as a major requires that the student complete a "Change of Major/Minor" form and a major application form (both available in the Sociology department office, Candelaria Hall 228).

Required Sociology Credits — 30 semester hours

SOC 120 Introduction to Family Studies	3
SOC 221 Sociology of Gender	3
SOC 324 Issues in the Family	3
SOC 326 Sociology of Childhood and Adolescence	3
SOC 351 Classical Social Theory	3
SOC 352 Contemporary Social Theory	3
SOC 361 Social Research	3
SOC 362 Social Statistics	3
SOC 423 Violence and the Family	3
SOC 493 Practicum in Family Studies	3

SOC 351 Classical Social Theory	3
SOC 352 Contemporary Social Theory	3
SOC 361 Social Research	3
SOC 362 Social Statistics	3
SOC 444 Sociology of Criminal Law	3

Required Elective Credits — 12 semester hours

Choose any four Sociology courses but include no more than two courses (6 hours) at the 100 or 200 level. Further, SOC 302, SOC 422 and SOC 490 can be repeated for credit but no more than three hours of each course will be counted toward the major.

General Education, Specified — 6 semester hours

Category 2 — Mathematics

STAT 150 Introduction to Statistical Analysis	3
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Category 5f — Sociology

SOC 100 Principles of Sociology	3
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Notes

The Sociology Department requires a grade of "C" or better for all Sociology classes that count toward the major.

Students may select only ONE emphasis area.

Students may elect to complete the PTEP program in place of, or in addition to, the required minor.

Students wishing to be recommended for teacher licensure must also complete the approved Professional Teacher Education program in elementary, middle school or special education.

Required Elective Credits — 9 semester hours

Note that you may choose any three Sociology courses but include no more than two courses (6 hours) at the 100 or 200 level. Further, SOC 302, SOC 422 and SOC 490 can be repeated for credit but no more than three hours of each course will be counted toward the major.

General Education, Specified — 6 semester hours

Category 2 — Mathematics

STAT 150 Introduction to Statistical Analysis	3
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Category 5f — Sociology

SOC 100 Principles of Sociology	3
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Notes

Students should purchase a Family Studies Handbook from the Family Studies office upon their entry into the program.

Students need to attend a required practicum meeting during the fall before their practicum and subsequently need to set up their research projects with the agencies before the semester begins.

The Sociology Department requires a grade of "C" or better for all Sociology classes that count toward the major.

Students may select only ONE emphasis area.

Students may elect to complete the PTEP program in place of, or in addition to, the required minor.

Students wishing to be recommended for teacher licensure must also complete the approved Professional Teacher Education program in elementary, middle school or special education.

Bachelor of Arts in Sociology Emphasis in Social Issues

Program Requirements	
Required Sociology credits	15
Required elective credits	24
General Education credits:	
Specified	6
Remaining	34
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

A Bachelor of Arts degree in Sociology with an emphasis in social issues combines basic principles, theories and methods and applies them to an understanding of social relations and institutional arrangements. The curriculum includes an examination of major issues in sociology, social change, social psychology and other elective areas.

Graduates with this emphasis will be prepared for employment in social agencies, social research and related areas. A foundation is provided for graduate work in sociology.

Program Admission Requirements

Admission to the Sociology department as a major requires that the student complete a "Change of Major/Minor" form and a major application form (both available in the Sociology department office, Candelaria Hall 228).

Required Sociology Credits — 15 semester hours

SOC 272 The Community	3
SOC 351 Classical Social Theory	3
SOC 352 Contemporary Social Theory	3
SOC 361 Social Research	3
SOC 362 Social Statistics	3

Required Elective Credits — 24 semester hours

Select four courses from the following:

SOC 235 Social Change	3
SOC 237 Sociology of Minorities	3
SOC 330 Social Organizations	3
SOC 332 Social Psychology	3

Bachelor of Arts in Sociology Emphasis in Sociology of Education

Program Requirements	
Required Sociology credits	30
Required elective credits	9
General Education credits:	
Specified	6
Remaining	34
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

The Bachelor of Arts Degree in Sociology with an emphasis in Education includes an examination of major theories of self and issues of the family, education, community and social structures. It is recommended that students who would like to receive licensure in elementary education with a major in sociology consider this emphasis area.

Graduates with this emphasis will be prepared for knowledgeable and productive citizenship roles, will have an understanding of socialization beginning with the self and progressing through the family, schools and the community and have knowledge and skills related to educational institutions. A foundation is provided for graduate work in sociology.

Program Admission Requirements

Admission to the Sociology department as a major requires that the student complete a "Change of Major/Minor" form and a major application form (both available in the Sociology department office, Candelaria Hall 228).

Required Credits — 30 semester hours

SOC 237 Sociology of Minorities	3
SOC 272 Community	3
SOC 326 Sociology of Childhood and Adolescence	3
SOC 332 Social Psychology	3
SOC 333 Social Class and Inequality	3
SOC 351 Classical Social Theory	3
SOC 352 Contemporary Social Theory	3

SOC 333 Social Class and Inequality	3
SOC 373 Political Sociology	3
SOC 491 Internship in Social Issues	3-9
Additional electives from sociology courses	12

Choose any four sociology courses but include no more than two courses (6 hours) at the 100 or 200 level. Note that SOC 302, SOC 422, and SOC 491 can be repeated for credit but no more than 3 hours of each course will be counted toward the major.

General Education, Specified — 6 semester hours

<i>Category 2 — Mathematics</i>	
STAT 150 Introduction to Statistical Analysis	3
<i>Category 5f — Sociology</i>	
SOC 100 Principles of Sociology	3

Notes

Students need to receive approval of their internship proposal from the Social Issues Emphasis Coordinator during the semester prior to taking SOC 491, Internship in Social Issues.

At least 50 percent of the courses taken to complete the major must be upper division, 300-400 level.

The Sociology Department requires a grade of "C" or better for all Sociology classes that count toward the major.

Students may elect to complete the PTE Program in place of, or in addition to, the minor.

No sociology major may apply for admission to the Professional Teacher Education Program (PTEP) until he or she has passed at least 15 semester hours of courses in the major, at least 6 hours of which must have been taken at the University of Northern Colorado.

Students wishing to be recommended for teacher licensure must also complete the approved Professional Teacher Education program in elementary, middle school or special education.

SOC 361 Social Research	3
SOC 362 Social Statistics	3
SOC 378 Sociology of Education	3

Required Elective Credits — 9 semester hours

Note that you may choose any three Sociology courses, but include no more than two courses (6 hours) at the 100 or 200 level. Further, SOC 302, SOC 422 and SOC 490 can be repeated for credit but no more than three hours of each course will be counted toward the major.

General Education, Specified — 6 semester hours

<i>Category 2 — Mathematics</i>	
STAT 150 Introduction to Statistical Analysis	3
<i>Category 5f — Sociology</i>	
SOC 100 Principles of Sociology	3

Notes

At least 50 percent of the courses taken to complete the major must be upper division courses, 300-400 level.

The Sociology Department requires a grade of "C" or better for all Sociology classes that count toward the major.

Students may elect to complete the PTEP Program in place of, or in addition to, the minor.

No sociology major may apply for admission to the Professional Teacher Education (PTEP) program until he or she has passed at least 15 semester hours of courses in the major, at least 6 hours of which must have been taken at the University of Northern Colorado.

Students wishing to be recommended for teacher licensure must also complete the approved Professional Teacher Education program in elementary, middle school or special education.

Master of Arts in Social Science Emphasis in Clinical Sociology

Program Requirements

Required Sociology credits	27
Required elective credits	9

The Master of Arts in Social Science, with an emphasis in Clinical Sociology, is a program that provides students with a theoretical and research methodology repertoire designed to assist communities, agencies, legislative bodies, industries, and political jurisdictions in identifying and overcoming barriers to achieving their high priority social goals. Graduates of this program should also be able to assess and make reasonable projections concerning the social costs and benefits resulting from local, regional, and national policies aimed at meeting community needs. The major emphasis of the program is to provide graduates with social science knowledge and skills which are applicable to communities, organizations, and agencies in their efforts to cope with a variety of social concerns.

Program Admission Requirements

After acceptance by the UNC Graduate School, students must apply to, and be accepted by, the Department of Sociology Graduate Committee.

Students must have earned a B.A. or B.S. degree from an accredited college or university.

Students must submit a letter of application outlining their qualifications and academic and career goals, Graduate Record Examination scores, and two letters of recommendation to the Department of Sociology Graduate Committee.

Required Sociology Credits — 24 semester hours

SOC 639 Seminar in Clinical Sociology	3
SOC 650 Applied Social Theory	3
SOC 660 Applied Social Research	3
SOC 680 Social Policy Analysis	3
SOC 691 Research Internship	3
SOSC 699 Thesis	6
GERO 665 Grant Development and Administration	3

Successful completion of a thesis is required. In accordance with regulations set forth in the UNC Thesis and Dissertation Manual, each student will develop and write a thesis which focuses on some important aspect of clinical sociology. For at least one semester, students will work as interns, either on a volunteer or paid basis, for an organization or agency, collecting and analyzing data,

which sheds light on a problem or goal. For at least one additional semester, students will consult, either on a volunteer or paid basis, with agency or organization representatives, helping to implement a problem-solving or change-oriented program. It is expected that topic selection, data collection, analysis, and writing of the thesis will result from the internship experience. The Department of Sociology is not able to provide stipends, or any other form of monetary support, for students during their internship experience.

Required Elective Credits — Choose one

SOC 530 Social Organizations	3
SOC 632 Seminar in Social Psychology	3

Other Elective Credits — 9 semester hours

At least two of the courses taken must be in disciplines other than Sociology.	
EPSY 530 Lifespan Developmental Psychology	3
GEOG 578 Seminar in Research Methodology	3
GEOG 590 Advanced Research Seminar	3
GERO 655 Program Planning and Evaluation in Gerontology	3
MATH 535 Introductory Analysis I	3
PSY 620 Assessment and Interviewing	2
PSY 627 Psychometrics	3
PPSY 565 Psychology of Prejudice	2
PPSY 624 Assessment and Treatment of Substance Abuse	3
PPSY 655 Community Psychology and Social Systems	3
SOC 508 Sociology of Occupations	3
SOC 523 Violence and the Family	3
SOC 544 Sociology of Criminal Law	3
SOC 554 Criminological Theories	3
SOC 563 Qualitative Methods	3
SOC 571 Sociology of Aging	3
SOC 602 Perspectives in Applied Sociology	3
SPAN 561 Latin American Civilization and Cultures (taught in Spanish)	2
SPAN 562 Mexico and U.S. Hispanic Civilization and Culture (taught in Spanish)	2
SRM 512 Mathematical Statistics with Applications II	4
SRM 605 Multivariate Analysis I	3
SRM 609 Sampling Methods	4
SRM 670 Evaluation: Models and Designs	3
SRM 671 Evaluations: Advanced Methods	3
WS 510 Philosophy of Feminism	3
WS 520 Women in History	3

Bachelor of Arts in Spanish Emphasis in Bilingual Bicultural Education

Program Requirements

Required credits	33
Required supporting credits	3
Required elective credits	3
General Education credits:	
Regular	40
PTEP program	37-39
Required credits for licensure	21
Total credits required for this degree	137-139

Students develop a functional proficiency in the Spanish language and an understanding of the role of the bilingual teacher in the classroom at the elementary (k-6) level, and middle grades (5-9).

The program prepares competent bilingual/bicultural teachers.

Required Credits — 33 semester hours

HISP 101 Introduction to Mexican American Studies	3
HISP 395 Historical, Philosophical, Legal & Cultural Dimensions of Bilingual Education	3
HISP 400 Methods and Assessment for Bilingual Education and ESL	3
SPAN 201 Intermediate Spanish I	3
SPAN 202 Intermediate Spanish II	3
SPAN 301 Spanish Grammar	3
SPAN 302 Spanish Composition	3
SPAN 303 Spanish Conversation	3
SPAN 407 Spanish for Oral Proficiency	3
SPAN 411 Spanish for Bilingual Education I	3
SPAN 412 Spanish for Bilingual Education II	3
Note that competency in the Spanish language must be demonstrated on the Hispanic Studies Department's oral proficiency interview at the intermediate level at least one semester prior to the student teaching semester.	

Bachelor of Arts in Spanish Emphasis in Liberal Arts

Program Requirements

Required Spanish credits	36
Required elective credits	3
General Education credits	40
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

Students develop a functional proficiency in the four language skills (listening, speaking, reading and writing) and an appreciation and understanding of the civilization and culture of the Hispanic world.

Students become functionally proficient in the Spanish language with a broad understanding and knowledge of the civilization and culture of the Spanish-speaking world.

Required Credits — 36 semester hours

SPAN 201 Intermediate Spanish I	3
SPAN 202 Intermediate Spanish II	3
SPAN 301 Spanish Grammar	3
SPAN 302 Spanish Composition	3
SPAN 303 Spanish Conversation	3
SPAN 304 Introduction to Hispanic Literature	3
SPAN 321 Spanish Civilization and Culture	3
SPAN 331 Latin American Civilization and Culture	3
SPAN 350 Masterpieces of Spanish Literature	3
SPAN 351 Masterpieces of Latin American Literature	3
SPAN 405 Spanish Phonetics and Dialects	3
SPAN 407 Spanish for Oral Proficiency	3

Required Supporting Credits — 3 semester hours

ANT 210 Field Methods in Cultural Anthropology	3
SPCO 323 Intercultural Communication	3

Required Elective Credits — 3 semester hours

SPAN 304 Introduction to Hispanic Literature	3
SPAN 321 Spanish Civilization and Culture	3
SPAN 331 Latin American Civilization and Culture	3
SPAN 406 Introduction to Translation	3

Notes

Students must have at least a 2.5 GPA for admission to this major and emphasis.

Students must complete at least 10 credits in this major before applying to PTEP.

PTEP is required for this program.

It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

In order to gain permission to apply for student teaching, a Spanish major must successfully pass the department's oral proficiency interview.

All Spanish language courses to be counted for the major must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

SPAN 411 need not be taken before SPAN 412.

Required Elective Credits — 3 semester hours

SPAN 406 Introduction to Translation	3
SPAN 452 Mexican Literature	3
SPAN 453 Spanish Literature of the 20th Century	3
SPAN 454 Latin American Literature of the 20th Century	3
SPAN 455 Spanish Readings	3
SPAN 456 Spanish and Latin American Short Story	3
SPAN 457 Literature of United States Hispanics	3
SPAN 458 Cervantes	3
SPAN 459 Hispanic Drama	3

Notes

It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

A minor of at least 18 semester hours is required with prior approval from the department.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

In order to gain permission to apply for graduation, a Spanish major must successfully pass the department's oral proficiency interview.

Bachelor of Arts in Spanish Emphasis in Teaching

Program Requirements

Required Spanish credits	36
Required supporting credits	3
General Education credits	40
PTEP program	37-39
Required minor with minimum hours	18
Total credits required for this degree	134-136

Students develop a functional proficiency in the four language skills (listening, speaking, reading and writing) and an appreciation and understanding of the civilization and culture of the Hispanic world. This will be accompanied by training in the most recent methodologies that can be used in the effective teaching of Spanish.

Students become competent secondary teachers of Spanish.

Required Spanish Credits — 36 semester hours

SPAN 201 Intermediate Spanish I	3
SPAN 202 Intermediate Spanish II	3
SPAN 301 Spanish Grammar	3
or	
SPAN 414 Contrastive Features of Spanish and English	3
SPAN 302 Spanish Composition	3
SPAN 303 Spanish Conversation	3
SPAN 304 Introduction to Hispanic Literature	3
SPAN 321 Spanish Civilization and Culture	3
SPAN 331 Latin American Civilization and Culture	3

SPAN 350 Masterpieces of Spanish Literature	3
SPAN 351 Masterpieces of Latin American Literature	3
SPAN 405 Spanish Phonetics and Dialects	3
SPAN 407 Spanish for Oral Proficiency	3

Required Supporting Credits — 3 semester hours

FL 341 Methods of Teaching in the Secondary School	3
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Notes

PTEP is required for this program.

Students wishing to be licensed must complete EDLS 363 and FL 341.

It is recommended that Spanish majors take HIST 118 and either HIST 314 or HIST 315.

In order to gain permission to apply for student teaching, a Spanish major must successfully pass the department's oral proficiency interview.

A minor of at least 18 semester hours is required with prior approval from the department.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

Master of Arts in Foreign Languages Emphasis in Spanish Teaching

Program Requirements

Complete the required credits specified here10
Complete program electives specified here20

The program is designed for the secondary school teacher of Spanish and concentrates on the development of a high level of functional proficiency in the four language skills and in culture. The most recent developments in foreign language teaching methodologies are studied and researched.

The program prepares graduate level Spanish language teachers for the secondary schools.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a B.A. in Spanish or the equivalent and must have completed one year of teaching experience in foreign language at the secondary level.

Students may complete the M.A. degree:

- In summers only or
- during the academic year only or
- by combining summer work with regular academic year program offerings.

Students are required to complete 20 semester hours of coursework within the Department of Hispanic Studies in Spanish and 10 semester hours of coursework outside of the department in areas of pedagogy and civilization and culture. The 20 within the department consist of courses in the following categories:

- 16 hours in language, literature and civilization
- 4 hours in foreign language workshops and/or practica.

Required Credits — 10 semester hours

FL 508 Workshop2
FL 531 Teaching of Foreign Languages2

Civillization (select one of the following):

SPAN 521 Spanish Civilization and Culture3
SPAN 531 Latin American Civilization and Culture3
SPAN 560 Spanish Civilization and Culture2
SPAN 561 Latin American Civilization and Culture2
SPAN 562 Mexico and United States Hispanic Civilization and Culture2

Literature (select one of the following):

SPAN 550 Masterpieces of Spanish Literature3
SPAN 551 Masterpieces of Latin American Literature3
SPAN 570 Readings in United States Hispanic Literature1-3
SPAN 571 Readings in Spanish Literature1-3
SPAN 572 Readings in Latin American Literature1-3

Language (select one of the following):

SPAN 501 Spanish Grammar3
SPAN 502 Spanish Composition3
SPAN 505 Spanish Phonetics and Dialects3
SPAN 507 Spanish for Oral Proficiency3
*SPAN 580 Grammar Topics1-3
SPAN 582 Spanish for Oral Proficiency2
SPAN 584 Spanish Pronunciation and Dialects2

*If offered

Required Elective Credits within the Department — 10 semester hours

In addition to the required core of courses, the student is to select 10 additional hours from the graduate level courses offered during the regular academic year or from the courses listed below, which are offered on a rotating basis during summers only.

Civillization

SPAN 560 Spanish Civilization and Culture2
SPAN 561 Latin American Civilization and Culture2
SPAN 562 Mexico and United States Hispanic Civilization and Culture2
SPAN 563 Hispanic Cultural Topics3

Literature

SPAN 570 Readings in United States Hispanic Literature3
SPAN 571 Readings in Spanish Literature3
SPAN 572 Readings in Latin American Literature3
SPAN 573 National Literatures2
SPAN 574 Masterpieces of 20th Century Spain2
SPAN 575 Masterpieces of 20th Century Latin America2
SPAN 576 Mexican Literature2

Skill Development

SPAN 580 Grammar Topics3
SPAN 581 Advanced Spanish Grammar2
SPAN 582 Spanish for Oral Proficiency2
SPAN 583 Oral and Written Discourse2
SPAN 584 Spanish Pronunciation and Dialects2

Workshops

HISP 508 Workshop6
HISP 513 Professional Renewal6
SPAN 508 Workshop6
SPAN 513 Professional Renewal6

Required Elective Credits outside the Department — 10 semester hours

Students are required to complete 10 semester hours of courses outside of the department in the areas of pedagogy and civilization and culture. Courses selected must relate logically to the teaching of Spanish. A minimum of two courses in each area will be chosen with the consent of the major advisor.

Note

Students must successfully complete written and oral comprehensive examinations. No thesis is required.

Elementary Education and Middle School Education Endorsement in Bilingual Bicultural Education

Endorsement Requirements

Total credits required for this endorsement18

Courses for a Bilingual Bicultural Education Endorsement will be provided by the Department of Hispanic Studies to Elementary Education and Middle School Education students who wish to be licensed to teach in elementary (K-6) and middle school (5-9) Bilingual Bicultural Education programs. Courses are provided in Spanish language skills, culture of the Southwest and of Hispanics in the United States, methodology, language skill assessment theory and practice. For elementary education, this program can be combined with a major in other Arts and Sciences subjects or realized within our Spanish major. For middle school, this program can be combined with an approved major for middle school.

Requirements

Students must have completed the Intermediate Spanish courses and 300-level skill-building courses or equivalent before enrolling in SPAN 411 and 412.

Required Credits — 18 semester hours

Select one of the following:

HISP 101 Introduction to Mexican American Studies	3
or	
HISP 102 Hispanic Cultures in the United States	3

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education	3
HISP 400 Methods and Assessment for Bilingual Education and ESL	3
SPAN 411 Spanish for Bilingual Education I	3
SPAN 412 Spanish for Bilingual Education II	3
<i>Select one of the following:</i>	
ANT 210 Field Methods in Cultural Anthropology	3
or	
SPCO 323 Intercultural Communication	3

Note

Students must pass the Hispanic Studies Department's oral proficiency interview in Spanish at the intermediate level before being allowed to enter student teaching. Students who have not completed SPAN 101-102-201 or 202 or who have not completed, as a minimum, 3 years of high school Spanish or are a native speaker may have to complete additional Spanish courses to meet requirements.

Graduate Endorsement in Bilingual Bicultural Education

Elementary and Middle School Education required total credits18
Secondary Education required total credits21

This graduate level endorsement program in Bilingual Bicultural Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a dual language classroom. This program leads to recommendation to Colorado's Linguistically Diverse: Bilingual Education endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

Elementary and Middle School Education Required Credits — 18 Semester Hours

EDEL 619 Pluralism in Education	3
EDLD 602 Teaching Linguistically Diverse Learners	3

EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
SPAN 514 Contrastive Features of Spanish and English	3
SPAN 555 Spanish Readings	3

Secondary Education Required Credits — 21 Semester Hours

EDEL 619 Pluralism in Education	3
EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
EDRD 620 Reading in the Middle and Secondary School	3
SPAN 514 Contrastive Features of Spanish and English	3
SPAN 555 Spanish Readings	3

Note

Students are required to take the Spanish Oral Proficiency Exam (OPE). Additional language courses may be required if they do not pass the OPE.

Elementary Education and Middle School Education Endorsement in Teaching English as a Second Language

Endorsement Requirements

Total credits required for this endorsement20

This endorsement program in Teaching English as a Second Language (ESL) provides the student with the study of the structures of English and with the theory and practice related to the teaching of English as a second language. Students successfully completing this program will be recommended for the Linguistically Diverse: English as a Second Language endorsement in Elementary or Middle grades. This program must be completed in conjunction with the Elementary Education or Middle School Licensure Program.

Required Credits — 20 semester hours

ENG 219 Traditional and Modern Grammars	3
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ENG 419 Languages and the History of English	3
HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education	3
MCS 101 Multiculturalism in the U.S.: Concepts and Issues	3
SPCO 323 Intercultural Communication	3
TESL 301 TESL Practicum I	2
TESL 400 Methods and Approaches of ESL/EFL	3

Note

Students must complete a second language requirement equivalent to one year of college-level studies.

Graduate Endorsement in Teaching English as a Second Language

Elementary and Middle School Education required total credits18
Secondary Education required total credits21

This graduate level endorsement program in the teaching of English as a Second Language (ESL) emphasizes the study of the structures of English, second language acquisition, and methodology related to the teaching of English to speakers of other languages. This program leads to recommendation to Colorado's Linguistically Diverse: ESL endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

Elementary and Middle School Education Required Credits — 18 Semester Hours

EDEL 619 Pluralism in Education	3
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EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
ENG 633 Studies in Linguistics	3
HISP 508 Teaching the Mexican American Student	3

Secondary Education Required Credits — 21 Semester Hours

EDEL 619 Pluralism in Education	3
EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
EDRD 620 Reading in the Middle and Secondary School	3
ENG 633 Studies in Linguistics	3
HISP 508 Teaching the Mexican American Student	3

Note

Students must show evidence of familiarity with a second language.

Speech Communication Major Requirements

To become a major in the Department of Speech Communication, the student must complete a "Change of Major/Minor" form, available from the department in Candelaria Hall 121. Students may do this any time during the freshman, sophomore, or junior year.

General Education Requirements

The department expects its new majors to have already made significant progress toward completion of the General Education requirements.

Bachelor of Arts in Communication Emphasis in Human Communication

Program Requirements

Required Speech Communication credits	12
Required core credits	9
Required elective credits	18
General Education credits	40
Required minor with minimum credits	18
Elective credits	23
Total credits required for this degree	120

A major in the discipline of speech communication allows the student to examine closely the many ways in which spoken language is the foundation of human societies and cultures. At UNC, speech communication coursework focuses on theoretical, analytic and practical aspects of human interaction. Students may elect to emphasize the study of communication in interpersonal, small group, organizational and intercultural contexts. Practical skills may be obtained in professional presentation, persuasion, leadership, and communication consulting.

Students completing this program may elect to apply for graduate study in the field of speech communication, to apply to law or other professional schools, or to begin a career with businesses who are interested in hiring people whose expertise involves human communication.

Required Speech Communication Credits — 12 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 102 Introduction to Speech Communication	3
SPCO 103 Speaking Evaluation	2
SPCO 201 Inquiry in Speech Communication	3
SPCO 491 Speech Communication Theory	3
Note that SPCO 212 may be substituted for SPCO 100/103 with permission of the Director of the Basic Course.	

Required Core Credits — 9 semester hours (minimum)

Select a minimum of one course from each category:

Interpersonal Communication

SPCO 321 Interpersonal Theory	3
SPCO 323 Intercultural Communication	3
SPCO 324 Family Communication	3

Grade Point Average

Students must have a minimum of 2.5 GPA for all courses completed for graduation. Students wishing to be admitted to Professional Teacher Education (PTEP) in Speech Communication must have a minimum of 3.0 GPA for all courses completed in Speech Communication.

Small Group and Organizational Communication

SPCO 330 Small Group Communication	3
SPCO 331 Organizational Communication	3
SPCO 431 Communication and Leadership	3

Communication and Influence

SPCO 341 Courtroom Communication	3
SPCO 343 Persuasion	3
SPCO 404 Rhetorical Theory	3
SPCO 444 Argumentation Theory	3

Required Elective Credits — 18 semester hours

Select additional electives from the core courses or from the courses listed below to total a minimum of 18 hours of program electives.

SPCO 111 Oral Interpretation	3
SPCO 211 Argumentation and Debate	3
SPCO 212 Professional Speaking	3
SPCO 221 Non-verbal Communication	3
SPCO 232 Principles of Interviewing	3
SPCO 442 Directed Study	1-3
SPCO 461 Seminar in Speech Communication	3
SPCO 480 Research in Speech Communication	2-5
SPCO 492 Undergraduate Internship	1-3

Notes

Students in the Honors Program may count HON 351 and HON 451 as electives in Speech Communication.

Majors may count one course in a related discipline toward their speech communication electives. This course must be approved by their major advisor.

All majors must complete a minimum of 18 semester hours in 300- and 400-level SPCO courses, with a minimum of 6 semester hours at the 400-level. A grade of "C" or better must be earned for required SPCO courses for that course to count toward graduation. A grade point average of 2.5 for SPCO courses is required for graduation. A maximum of 3 semester hours of credits from SPCO 422, 480, and/or 492 may count toward the 39 hour major.

Bachelor of Arts in Communication Emphasis in Secondary Education

Program Requirements	
Required Core credits	24
Required supporting credits	3
Required elective credits	12
General Education credits	40
PTEP requirements	37-40
Required minor with minimum credits	18
Total credits required for this degree	134-137

A major in the discipline of speech communication with an emphasis in secondary education allows the student to examine the many ways in which spoken language is the foundation of human societies and cultures. At UNC, speech communication coursework focuses on theoretical, analytic and practical aspects of human interaction. For majors emphasizing secondary education, required courses include the study of oral interpretation, argumentation and debate, teaching methods, and speech communication theory. Students may elect to add courses in small group, organizations, and intercultural communication as well as the study of communication and conflict, leadership, or persuasion. Practical skills may be obtained in professional presentation, persuasion, leadership, and interpersonal communication.

The principle purpose of this program is to prepare persons as teachers of speech communication in secondary schools. Graduates also may elect to apply for graduate study in the field of speech communication or other professional schools.

Required Core Credits — 24 semester hours

SPCO 102 Introduction to Speech Communication	3
SPCO 111 Oral Interpretation	3
SPCO 201 Inquiry in Speech Communication	3
SPCO 211 Argumentation and Debate	3
SPCO 212 Professional Speaking	3
SPCO 352 Methods of Teaching Secondary Communication	3
SPCO 354 Directing Speech Communication Activities	3
SPCO 491 Speech Communication Theory	3

Required Supporting Credits — 3 semester hours

JMC 100 Introduction to Journalism and Mass Communications	3
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Required Elective Credits — 12 semester hours

Select at least one course from each category:

<i>Interpersonal Communication</i>	
SPCO 221 Non-Verbal Communication	3
SPCO 321 Interpersonal Theory	3
SPCO 323 Intercultural Communication	3
SPCO 324 Family Communication	3

<i>Small Group and Organizational Communication</i>	
SPCO 330 Small Group Communication	3
SPCO 331 Organizational Communication	3
SPCO 431 Communication and Leadership	3
<i>Communication and Influence</i>	
SPCO 341 Courtroom Communication	3
SPCO 343 Persuasion	3
SPCO 404 Rhetorical Theory	3
SPCO 444 Argumentation Theory	3

Notes

Students in the Honors program may count HON 351 and HON 451 as electives in Speech Communication.

Majors may count one course in a related discipline toward their speech communication electives. This course must be approved by their major advisor.

All majors must complete a minimum of 18 semester-hours of 300- and 400-level SPCO courses with a minimum of 6 semester hours in 400-level courses.

All requirements for the Professional Teacher Education Program, as described in this Bulletin, must be met.

A Speech Communication major may apply for admission to the Professional Teacher Education (PTEP) program when he or she has obtained a "B" or better in a minimum of six (6) semester hours of SPCO prefix courses taken at the University of Northern Colorado. Majors must maintain a 3.0 GPA for SPCO prefix courses.

Before being permitted to apply for student teaching, a Speech Communication major must have successfully completed at least 27 hours in the major, be approved by the faculty of the department, and have at least a 3.0 grade point average in those courses taken at UNC.

To be recommended by the department for teacher licensure, the student must have at least a 3.0 grade point average at the completion of his or her program in those courses counting toward the major and that were taken at UNC and be endorsed by the faculty of the Speech Communication department.

Master of Arts in Communication

Emphasis in Human Communication: Non-Thesis Option

Program Requirements

Complete the required credits specified here18
 Complete program electives specified here15

This program focuses on the study of spoken symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, interpersonal and group communication, and communication research methods.

Successful completion of this program will help persons advance current professional careers, prepare themselves for careers in business and industry requiring expertise in human communication or prepare themselves for a Ph.D. program in speech communication.

Required Credits — 18 semester hours

Communication Core

SPCO 600 Graduate Study in Communication	3
SPCO 601 Qualitative Methods in Communication Research	3
SPCO 602 Quantitative Methods in Communication Research	3
SPCO 605 Rhetorical Criticism	3
SPCO 504 Rhetorical Theory	3
or	
SPCO 603 Communication Theory	3
SPCO 514 Interpersonal Communication	3
or	
SPCO 515 Group Communication	3

Required Elective Credits — 15 semester hours

500- and/or 600-level coursework

Notes

Select any electives with SPCO prefixes. One elective course may be from a related discipline with the approval of your advisor. Students must adhere to the Graduate School policy on double-numbered courses.

Graduates are required to have a minimum of 48 graduate and undergraduate credit hours in the discipline for graduation. Possible deficiencies will be determined after review of the undergraduate transcripts.

All graduate students must pass written and oral comprehensive examinations before graduation. Students may apply for comprehensive examinations after completion of 24 semester hours, all undergraduate requirements and all required courses.

Students selecting the non-thesis option should be aware that this requires three more hours than the thesis option.

A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, 561, or 622 may be counted toward the master's degree.

Master of Arts in Communication

Emphasis in Human Communication: Thesis Option

Program Requirements

Complete the required credits specified here24
 Complete program electives specified here6

This program focuses on the study of spoken symbolic interaction. Students will emphasize coursework relevant to rhetorical and communication theory, to interpersonal and group communication, and communication research methods.

Successful completion of this program will help persons advance their current professional careers, prepare themselves for careers in business and industry requiring expertise in human communication or prepare themselves to apply for a Ph.D. program in speech communication. The thesis option is recommended for students considering additional graduate study.

Required Credits — 24 semester hours

Communication Core

SPCO 600 Graduate Study in Communication	3
SPCO 601 Qualitative Methods in Communication Research	3
SPCO 602 Quantitative Methods in Communication Research	3
SPCO 605 Rhetorical Criticism	3
SPCO 504 Rhetorical Theory	3
or	
SPCO 603 Communication Theory	3
SPCO 514 Interpersonal Communication	3
or	
SPCO 515 Group Communication	3

Thesis

SPCO 699 Thesis6

Required Elective Credits — 6 semester hours

500- and/or 600-level coursework

A student in this program must pass an oral examination over his or her thesis.

Notes

Select any electives with SPCO prefixes. One elective course may be from another discipline with the approval of your advisor. Students must adhere to the Graduate School policy on double-numbered courses.

Graduates are required to have a minimum of 45 graduate and undergraduate credit hours in the discipline for graduation. Possible deficiencies will be determined upon review of the undergraduate transcript.

All graduate students must pass written and oral comprehensive examinations before graduation. Students may apply for comprehensive examinations after completion of 24 semester hours, all undergraduate requirements and all required courses.

A maximum of 9 semester hours, individually or in combination, of courses numbered 508, 513, 561 or 622 may be counted toward the master's degree.

Minor in Teaching English as a Second Language (TESL)

Program Requirements

Required credits	10
Required supporting credits	12
Total credits required for this minor	22

The minor in TESL provides the student with the study of the structures of English and with the theory and practice related to the teaching of English as a second language.

The minor in TESL also prepares the student to teach English as a second language in the public schools, assuming that the student is licensed to teach in Colorado and in special English language centers in the United States and abroad.

Required Credits — 10 semester hours

HISP 395 Historical, Philosophical, Legal and Cultural Aspects of Bilingual Education	3
TESL 400 Methods/Approaches ESL/EFL	3
TESL 301 TESL Practicum I	2
TESL 302 TESL Practicum II	2

Required Supporting Credits — 12 semester hours

ANT 210 Field Methods in Cultural Anthropology	3
ENG 219 Traditional and Modern Grammars	3
ENG 419 Language and the History of English	3
SPCO 323 Intercultural Communication	3

Notes

One year of college-level, beginning foreign language study or its equivalent must be taken in addition to the required courses for this minor.

It is preferred that this minor be chosen by students enrolled in a teacher education program.

If any course required is waived, e.g., in the case of English majors who may not count a course toward both a major and minor, additional courses must be approved so that the student can fulfill the 22 credit hours required for this minor.

Students must follow the requirements of their major department and the School of Education for admission to the PTEP program. This minor may lead to teacher licensure. Please see an advisor.

Minor in Women’s Studies

Required Women’s Studies credits	9
Required elective credits	9
Total credits required for this minor	18

The basic intent of the Women’s Studies Program is to provide information in order to liberate women from systematic oppression.

Students will learn the theories underlying feminism(s) as well as the skills necessary to effectively communicate them.

Required General Education Credits — 3 semester hours

Category 7b — Multicultural Courses

WS 101 Women in Contemporary Society	3
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Required Women’s Studies Credits — 9 semester hours

WS 248 Introduction to Women’s Studies	3
WS 310 Feminist Theory	3
WS 448/548 Women’s Studies Seminar	3

Required Elective Credits — 9 semester hours

Courses should be chosen from among the following and other courses subsequently approved by the Women’s Studies Committee.

ANT 314 Sex Roles in Cultural Perspective	3
ART 308 Workshop in Art: Artists of Color/Women Artists	3
ART 395 Special Topics in Art: Women in Art	3
AFS 102 The Black Woman in America	3
AFS 230 Black Women in Literature	3
ECON 304 Women and the Economy	3
ENG 239 Topics in Women’s Literature	3
ENG 335 World Literature By and About Women	3

HISP 220 Women in Hispanic Society	3
HIST 347 United States Women’s History to 1877	3
HIST 348 United States Women’s History since 1877	3
HUM 331 Images of Women in Literature and the Arts	3
ID 208 Feminism: An Interdisciplinary Analysis	3
NURS 200 Women’s Health Care	3
PE 231 Women in Sport	2
PSCI 207 Women and Politics	2
PPSY 468 Psychology of Women	2
SOC 221 Sociology of Sex Roles	3
SOC 322 Women and Aging	3
SOC 423 Violence in the Family	3
WS 308 Women’s Studies Workshop	1-3
WS 320 Women in United States History	3
WS 373 Women-Identified Theory	3
WS 422 Directed Studies	1-3
WS 492 Internship	2-10

Notes

In all cases, a student’s program in women’s studies will be developed individually with each student by the coordinator or other members of the women’s studies faculty. Each student’s program must include at least 50 percent of coursework at the 300-400 level.

Each student should register with the coordinator to receive bulletins about general meetings, special programs scheduled and new courses approved by the Women’s Studies Committee.

Courses in women’s studies are also designed for general education and/or to fulfill various disciplinary major and minor requirements.

Minor in Applied Statistics**Program Requirements**

Required credits	13
Required elective credits	5-8
Total credits required for this minor	18-21

Required Credits — 13 semester hours

Select one of the following:

STAT 150 Introduction to Statistical Analysis	3
STAT 250 Statistics for Health Sciences	3
STAT 311 Basic Statistical Methods	4
STAT 406 Multiple Linear Regression	3
STAT 409 Sampling Techniques	3

Required Elective Credits — 5-8 semester hours

STAT courses numbered 300 or higher or MATH 350, MATH 351 with approval of advisor.

Minor in Biological Sciences/Liberal Arts**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

Required Credits — 9 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5

Required Elective Credits — 9 semester hours

Select from BIO, BOT or ZOO prefix, 9

Minor in Biological Sciences/Teaching Secondary Biological Science**Program Requirements**

Required credits	20
General Education, Specified	5
Total credits required for this minor	25

Required Credits — 20 semester hours

BIO 110 Principles of Biology	4
BIO 111 Survey of Organismal Biology	5
BIO 220 Genetics	5
BOT 350 General Plant Physiology	4
ZOO 245 Introduction to Human Anatomy and Physiology	4

General Education, Specified — 5 semester hours

CHEM 111 Principles of Chemistry I	5
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Note

State licensure regulations require a minimum of 24 semester hours distributed in appropriate science subject areas to teach any secondary science if someone is licensed in another subject area. Hours required in this minor will apply toward this requirement. See advisor for other courses to meet requirement. This minor does not lead to teacher licensure.

Minor in Black Studies**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

Required Credits — 9 semester hours

AFS 100 Introduction to Black Studies	3
AFS 104 Survey of Africa	3
AFS 240 Dynamics of Racism	3

Required Elective Credits — 9 semester hours

AFS 305 Survey of African American Literature	3
AFS 320 Economic Experience of Black America	3
AFS 332 Pan-Africanism	3
AFS 340 The Black Family	3
AFS 360 Music and the Black Experience	3
AFS 386 Modern African World	3
AFS 395 Aspects of the African American Experience	3
AFS 396 African and African American Worldviews	3
AFS 399 Community Study Project	1-4
AFS 420 African American Urban Politics	3
AFS 422 Directed Studies	1-4
AFS 456 Leadership and the Black Church	3
AFS 490 Seminar in Black Studies	3
AFS 508 Workshop	1-3
AFS 513 Professional Renewal	1-4
ID 308 Interpersonal Growth Workshop	3

Notes

AFS 395, Aspects of the African American Experience, is a variable subtitle course that students may take more than once under different subtitles.

AFS 399, 422, 508 or 513, when taken by minors, must always be taken for three semester hours.

Minor in Chemistry/Liberal Arts**Program Requirements**

Required credits	8-10
Required elective credits	11-13
Total credits required for this minor	21

Required Credits — 8-10 semester hours

Select one of the following groups:

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4

Required Elective Credits — 11-13 semester hours (to total 21 credits in the minor)

CHEM 131 Introductory Organic Chemistry	4
CHEM 109 Fundamentals of Chemistry II	5
CHEM 320 Theory and Use of Analytical Instruments	1
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2
CHEM 442 Inorganic Chemistry II	2
CHEM 481 General Biochemistry I	3
CHEM 483 Experimental Biochemistry I	1

At least half the credit hours for the minor must be at the 300-level or above.

Minor in Chemistry/Teaching**Program Requirements**

Required credits	10-12
Required supporting credits	9-11
Total credits required for this minor	21

Required Credits — 10-12 semester hours

Select one of the following groups:

CHEM 111 Principles of Chemistry I	5
CHEM 112 Principles of Chemistry II	5
or	
CHEM 114 General Chemistry I	4
CHEM 115 General Chemistry II	4
CHED 495 Seminar in Teaching Chemistry	2

Note that students must take CHED 495 or a substitute course in another science discipline with approval of the advisor. If a substitute course for CHED 495 is approved, an additional 2 semester hours of chemistry electives must be taken.

Required Elective Credits — 9-11 semester hours (to total 21 credits in the minor)

CHEM 131 Introductory Organic Chemistry	4
CHEM 109 Fundamentals of Chemistry II	5
CHEM 320 Theory and Use of Analytical Instruments	1
CHEM 321 Chemical Analysis	4
CHEM 331 Organic Chemistry I	5
CHEM 332 Organic Chemistry II	5
CHEM 441 Inorganic Chemistry I	2
CHEM 442 Inorganic Chemistry II	2
CHEM 481 General Biochemistry I	3
CHEM 483 Experimental Biochemistry I	1

Notes

At least half the credit hours for the minor must be at the 300-level or above.

State licensure regulations require a minimum of 24 semester hours distributed in appropriate science subject areas to teach any secondary science if someone is licensed in another subject area. Hours required in this minor will apply toward this requirement. See advisor for other courses to meet requirement. This minor does not lead to teacher licensure.

Minor in Computer Science**Program Requirements**

Required credits	15
Required elective credits	6
Total credits required for this minor	21

Required Credits — 15 semester hours

CS 101 Introduction to Computer Science	3
CS 102 Structured Analysis, Design and Programming	3
CS 200 Object-Oriented Analysis, Design, and Programming	3
CS 222 Computer Architecture/Organization	3
CS 301 Algorithms and Data Structures	3

Required Elective Credits — 6 semester hours

Two upper-division CS courses	6
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Minor in Earth Sciences**Program Requirements**

Required elective credits	20
Total credits required for this minor	20

Required Elective Credits — 20 semester hours

Courses with AST, ESCI, GEOL, MET and OCN prefixes may be used for the minor and must be selected in consultation with the minor advisor. No more than 8 semester hours of courses numbered between 100 and 199 may be counted for the minor.

Minor in Economics**Program Requirements**

Required Economic credits	6
Required elective credits	12
Total credits required for this minor	18

Required Credits — 6 semester hours

ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3

Required Elective Credits — 12 semester hours*Group A - Macroeconomics*

ECON 280 Money and Banking	3
ECON 303 Intermediate Macroeconomics	3
ECON 305 Intermediate Microeconomics	3
ECON 341 Public Finance	3
ECON 346 International Finance	3
ECON 360 Economics of Growth and Development	3
ECON 402 Contemporary Economic Problems	3
ECON 422 Directed Study	3
ECON 451 Quantitative Economics	3
ECON 452 Econometrics	3
ECON 455 Regional Theory and Methods	3
ECON 462 Economic History of the United States	3
ECON 470 History of Economic Thought	3

Group B - Microeconomics

ECON 245 Urban Planning Economics	3
ECON 303 Macroeconomics	3
ECON 304 Women and the Economy	3
ECON 305 Intermediate Microeconomics	3
ECON 315 Labor/Management Economics	3
ECON 345 International Trade	3
ECON 356 Water Resource Economics	3
ECON 400 Managerial Economics	3
ECON 402 Contemporary Economic Problems	3
ECON 422 Directed Study	3
ECON 451 Quantitative Economics	3
ECON 452 Econometrics	3
ECON 453 Business and Economic Forecasting	3
ECON 455 Regional Theory and Methods	3
ECON 462 Economic History of the United States	3
ECON 470 History of Economic Thought	3
ENST 335 Environmental and Resource Economics	3

Notes

Students must select the required elective credits from either Group A or Group B. Students selecting Group A must take ECON 303. Students selecting Group B must take ECON 305.

Students that desire a strong theoretical background are encouraged to take both ECON 303 and ECON 305.

At least 9 credit hours must be taken at the 300- or 400- level.

Minor in English**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

Required Credits — 9 semester hours

ENG 131 Introduction to Literature	3
ENG 219 Traditional and Modern Grammars	3
ENG 419 Language and the History of English	3

Required Elective Credits — 9 semester hours

One course from the following:

ENG 260 Masterpieces of English Literature	3
ENG 261 Masterpieces of American Literature	3
ENG 262 Masterpieces of World Literature	3

One course from each of the following levels:

ENG 300-level	3
ENG 400-level	3

Note

Qualified students may be exempted by examination from ENG 131.

Minor in French**Program Requirements**

Required credits	21
Required elective credits (minimum)	2
Total credits required for this minor	23

Required Credits — 21 semester hours

FR 201 Intermediate French I	3
FR 202 Intermediate French II	3
FR 301 French Conversation & Composition I	3
FR 302 French Conversation & Composition II	3
FR 311 French Civilization & Literature Survey I	3
FR 312 French Civilization & Literature Survey II	3
FR 407 French for Oral Proficiency	3

Required Elective Credits — 2 semester hours (minimum)

FR 150 Practicum in Contemporary Culture	1
FR 300 Intermediate French Readings	1-3
FR 350 Practicum in Teaching French	2
FR 401 Intensive French	4
FR 402 Contemporary Life in France	3
FR 403 France of the Ancient Regime	4
FR 404 Modern France	4
FR 405 Business French	3
FR 450 Studies in French Literature	3
FR 475 Seminar in French Literature	2

Notes

All work to be counted toward the French minor, liberal arts emphasis, must be beyond the first year level.

Students are encouraged to enrich their French language-related cultural awareness through regular participation in program-sponsored activities. Consult department advisor.

Students must maintain a minimum grade point average of 2.5 in those courses that count toward the minor and that are taken at UNC.

Advising with a French faculty member suggested before registration each semester.

Minor in Geography**Program Requirements**

Required credits	10
Required elective credits	8
Total credits required for this minor	18

Required Credits — 10 semester hours

GEOG 200 Human Geography	3
GEOG 232 Physical Geography	4
GEOG 264 Maps and Imagery	3

Required Elective Credits — 8 semester hours

Elective Credits will be selected with the approval of a faculty advisor, and must be from Geography courses at the 300 or 400 level.

Minor in German**Program Requirements**

Required credits	21
Required elective credits (minimum)	2
Total credits required for this minor	23

Required Credits — 21 semester hours

GER 201 Intermediate German I	3
GER 202 Intermediate German II	3
GER 301 German Conversation & Composition I	3
GER 302 German Conversation & Composition II	3
GER 311 German Civilization & Literature Survey I	3
GER 312 German Civilization & Literature Survey II	3
GER 407 German for Oral Proficiency	3

Required Elective Credits — 2 semester hours (minimum)

GER 150 Practicum in Contemporary Culture	1
GER 300 Intermediate German Readings	1-3
GER 350 Practicum in Teaching German	2
GER 401 Intensive German	4
GER 402 Contemporary Life in Germany	3
GER 403 Practicum in Germany	4
GER 404 Modern Germany	4
GER 405 Business German	3
GER 450 Studies in German Literature	3
GER 475 Seminar in German Literature	2

Notes

All work to be counted toward the German minor, liberal arts emphasis, must be beyond the first year level.

Students are encouraged to enrich their German language-related cultural awareness through regular participation in program-sponsored activities. Consult department advisor.

Students must maintain a minimum grade point average of 2.5 in those courses that count toward the minor and that are taken at UNC.

Advising with a German faculty member suggested before registration each semester.

Minor in History**Program Requirements**

Required elective credits	18
Total credits required for this minor	18

Required Elective Credits — 18 semester hours

Note that a minimum of 9 semester hours must be taken at the 200 level or higher.

Notes

History minors must obtain a grade of "C" or better in all history courses taken at UNC. Minors receiving a grade of "D" or lower in a history course must retake the course – or an equivalent approved by the academic advisor – and receive a grade of "C" or higher to have the course counted toward the minor.

It is recommended that at least one course should be drawn from the fields of Latin American, African or Asian history.

Students are encouraged to select electives with the advice and approval of their advisors.

Minor in Humanities**Program Requirements**

Required credits	9
Required supporting credits	12
Total credits required for this minor	21

Required Credits — 9 semester hours

HUM 111 The Classical Period Through the Middle Ages	3
HUM 112 The Renaissance to the Present	3
HUM 410 Advanced Seminar in the Humanities	3
or	
HUM 422 Directed Studies	3

Required Elective Credits — 12 semester hours

Elective Credits must be chosen from the following humanities categories: English, history, humanities, MIND, music, philosophy, theatre and visual arts. Courses taken in the elective category must focus upon a particular culture, period, topic or theme and must bear at least two prefixes. Two of these courses must be at the 300-400 level. The humanities advisor in the English Department must approve all courses for the humanities minor and copies of the approved course of study must be on file in the advisor's office and the English Department.

Minor in Legal Studies**Program Requirements**

Required credits	6
Required elective credits	15
Total credits required for this minor	21

Required Credits — 6 semester hours

PHIL 220 The Nature of Legal Reasoning	3
ID 420 Legal Research and Writing	3

Required Elective Credits — 15 semester hours*Group I — Basic (select 6 credits from the following):*

BAFN 231 Legal Environment of Business	3
BAFN 332 Business Administration and the Law	3
ELPS 385 Law and the Classroom Teacher	2
ENST 205 Environment, Politics and Law	2
HIST 340 American Constitutional History to 1870	3
HIST 341 American Constitutional History from 1870	3
JMC 497 Mass Communications Law	3
PSCI 306 Constitutional Law	3
SOC 141 Introduction to Criminal Justice	3
SOC 444 Sociology of Criminal Law	3
SPCO 341 Courtroom Communication	3

Group II — Policy (select 6 credits from the following):

BAMG 452 Business, Government and Society	3
ECON 402 Contemporary Economic Problems	3
HIST 262 American Intellectual History	3
MIND 286 Value Issues in Political Economy	3
PHIL 350 Ethics	3
PHIL 352 Business Ethics	3
PHIL 355 Social and Political Philosophy	3
PSCI 331 Political Philosophy I	3
PSCI 332 Political Philosophy II	3
PSCI 335 American Political Philosophy	3
SOC 346 Criminology	3
SOC 347 Sociology of Corrections	3

Group III - Skills (select 3 credits from the following):

ECON 304 Women and the Economy	3
ECON 305 Labor/Management Economics	3
ENG 203 The Essay	3
ENG 319 Advanced Expository Techniques	3
ENST 100 Introduction to Environmental Studies	3
PSCI 150 Research in Political Science	2
PSCI 392 Political Science Internship	3
PSY 443 Motivation	3
SPCO 211 Argument and Debate	3
SPCO 341 Courtroom Communication	3
SPCO 444 Argumentation Theory	3

Note that any other internship must be approved by your legal studies advisor.

Notes

Students must complete 50 percent of their coursework at the 300- and 400-level. No more than 12 hours may be taken in one department.

Some advanced courses have prerequisites. Please be certain that you meet the department's prerequisites if you plan to take such a course or you may check with the instructor to see if the prerequisite(s) may be waived, if you are capable of doing the work for the course.

Students are advised that the Required Courses are not offered every semester. Please contact the Legal Studies Adviser at 351-2572 as soon as you declare the minor to plan your schedule so that you can graduate on time.

Minor in Mathematics Education for Elementary Education Teachers**Program Requirements**

Required credits	3
Required supporting credits	15
Total credits required for this minor	18

Required Credits — 3 semester hours

MATH 283 Informal Geometry	3
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Required Elective Credits — 15 semester hours

To be chosen from mathematics, mathematics education, statistics or computer science offerings; at least two courses must be at the 300-400 level.

Notes

Students with a minor in mathematics who plan to teach in the elementary school must:

- complete the requirements for licensure as an elementary school teacher,
- choose electives with the approval of the minor program advisor and
- successfully complete MATH 182 Fundamentals of Mathematics II, before entering this program.

This minor does not lead to teacher licensure.

Minor in Mathematics/Liberal Arts**Program Requirements**

Required credits	8
Required supporting credits	12
Total credits required for this minor	20

Required Credits — 8 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4

Required Elective Credits — 12 semester hours

MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 229 Graph Theory	3
MATH 233 Calculus and Analytic Geometry III	4
MATH 321 Introduction to Abstract Algebra	4
MATH 335 Differential Equations I	3
MATH 336 Differential Equations II	3
MATH 341 Introduction to Modern Geometry	4
MATH 375 Elementary Numerical Analysis	3
MATH 431 Basic Analysis I	4
MATH 432 Basic Analysis II	4
MATH 464 Introduction to History of Mathematics	3
MATH 350 Elementary Probability Theory	4
MATH 351 Elementary Statistics Theory	3

Note that at least six of the twelve hours of electives must be at the 300-level or above.

Minor in Mathematics/Secondary Mathematics Teaching, Grades 7-12**Program Requirements**

Required credits	27
Total credits required for this minor	27

Required Credits — 27 semester hours

EDLS 363 Clinical Experience: Secondary	2
MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 221 Elementary Linear Algebra	3
MATH 228 Discrete Mathematics	3
MATH 321 Introduction to Abstract Algebra	4
MATH 341 Introduction to Modern Geometry I	4
MED 441 Methods of Teaching Mathematics	3

Note

Students must meet all requirements for Professional Teacher Education as specified in this Bulletin. Does not lead to teacher licensure.

Minor in Media Studies**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

Required Credits — 9 semester hours

JMC 100 Introduction to Journalism and Mass Communications	3
JMC 390 Impact of Mass Communications on Society	3
JMC 397 Journalism History	3

Required Elective Credits — 9 semester hours

Select courses with the JMC prefix. Elective credits must be chosen with consent of the student's advisor.

Note

Students must complete 50 percent of their coursework at the 300- and 400-level.

Minor in Mexican-American Studies**Program Requirements**

Required credits	15
Required supporting credits (minimum)	3
Total credits required for this minor	18

Required Credits — 15 semester hours

HISP 101 Introduction to Mexican-American Studies	3
HISP 111 Introduction to Hispanic Literature	3
HISP 225 History of the Chicano in the Southwest	3
HISP 300 Social Stratification in the Mexican-American Community	3
HIST 118 History of Mexico	3

Required Elective Credits — 3 semester hours

ART 383 Pre-Columbian Art	4
ENG 238 Introduction to Folklore: Hispanic	3
GEOG 335 Geography of Middle America	3
HISP 220 Women in Hispanic Society	3
HISP 370 Chicano Psychology	3

SOC 237 Sociology of Minorities	3
SPAN 255 Music of the Hispanic World	3
SPAN 452 Mexican Literature	3

Notes

ENG 238 will fulfill the elective requirement only if taken when the Hispanic folklore is being taught in the series of Introduction to Folklore courses.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

Minor in Philosophy**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

Required Credits — 9 semester hours

PHIL 260 History of Ancient Philosophy	3
PHIL 261 History of Modern Philosophy	3
PHIL 350 Ethics	3

Required Elective Credits — 9 semester hours

PHIL 100 Introduction to Philosophy	3
PHIL 101 Critical Thinking and Writing	3
PHIL 105 Philosophical Perspectives on Current Issues	3
PHIL 110 Figures in Western Philosophy	3
PHIL 115 Philosophy and Current Affairs	1-3
PHIL 220 Nature of Legal Reasoning	3
PHIL 240 Formal Logic I	3
PHIL 241 Formal Logic II	3
PHIL 300 Topics in Philosophy	3
PHIL 305 Ethics in Theory and Practice	3
PHIL 352 Business Ethics	3
PHIL 355 Social and Political Philosophy	3
PHIL 370 Philosophy of Religion	3
PHIL 385 Epistemology	3
PHIL 390 Metaphysics	3
PHIL 422 Directed Studies	1-3
PHIL 495 Advanced Seminar	3
PHIL 497 Student Internship	1-3

Notes

No more than 3 credit hours of PHIL 497 may be counted toward the minor.

Elective Credits should be chosen in consultation with minor advisor. At least 50 percent of the coursework must be completed at the 300-400 level.

Minor in Physics**Program Requirements**

Required credits	13
Required supporting credits	12
Required elective credits	6-8
Total credits required for this minor	31-33

Required Credits — 13 semester hours

PHYS 240 General Physics I	5
PHYS 241 General Physics II	5
PHYS 321 Elementary Modern Physics	3

Required Supporting Credits — 12 semester hours

MATH 131 Calculus and Analytic Geometry I	4
MATH 132 Calculus and Analytic Geometry II	4
MATH 233 Calculus and Analytic Geometry III	4
(PHYS 320 Mathematical Applications (3) may be substituted for MATH 233)	

Required Elective Credits — 6-8 semester hours

Select one course from the following:

PHYS 340 Mechanics I	3
PHYS 341 Electricity and Magnetism I	3

Select one course from the following:

PHYS 343 Alternating Currents and Electronics	4
PHYS 345 Atomic and Quantum Physics	5
PHYS 347 Optics	4
PHYS 420 Thermodynamics and Statistical Physics	3

Minor in Political Science**Program Requirements**

Required credits	6
Required elective credits	12
Total credits required for this minor	18

Required Credits — 6 semester hours

PSCI 100 United States National Government	3
PSCI 105 Introduction to Political Science	3

Required Elective Credits — 12 semester hours**Group A — American Politics**

ENST 205 Environmental Politics and Law	3
PSCI 203 Colorado Politics	3
PSCI 207 Women and Politics	2
PSCI 208 Introduction to Public Administration	3
PSCI 301 Electoral Politics in the United States	3
PSCI 302 Law-Making in the United States	3
PSCI 305 Politics of Education	3
PSCI 306 Constitutional Law	3
PSCI 392 Internship	3-10
PSCI 401 Public Policy in the United States	3
PSCI 405 Problems in American Politics	3
PSCI 422 Directed Studies	1-3

Group B — International Relations

PSCI 220 Introduction to International Relations	3
PSCI 320 American Foreign Policy	3
PSCI 321 War and Peace	3
PSCI 325 Conflict in the Middle East	3
PSCI 328 International Law and Organizations	3
PSCI 422 Directed Studies	1-3
PSCI 425 Problems in International Relations	3

Group C — Political Philosophy

PSCI 331 Political Philosophy I	3
PSCI 332 Political Philosophy II	3
PSCI 335 American Political Philosophy	3
PSCI 422 Directed Studies	1-3
PSCI 435 Problems in Political Philosophy	3

Group D — Comparative Politics

PSCI 210 Politics in the European Community	3
PSCI 310 Politics of Central and East European States	3
PSCI 315 Comparative Public Policy	3
PSCI 318 Politics of the Developing States	3
PSCI 415 Problems in Comparative Politics	3
PSCI 422 Directed Studies	1-3

Notes

The student must complete a block of Required Elective courses, which totals 12 hours, selected from the above in consultation with their advisor.

Students may take up to 6 hours in the Political Science Internship Program, but only a maximum of 3 hours can apply toward the political science minor. Admission to the Internship Program is limited.

Applications are available in the department office and must be submitted to the director, Internship Program, no later than the time of preregistration for the semester of the proposed internship. Students must have accumulated 12 hours in political science at the time of application.

Minor in Psychology**Program Requirements**

Required credits	10-11
Elective credits	7-8
Total credits required for this minor	18

Required Credits — 10-11 semester hours

PSY 120 Principles of Psychology	4
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At least two courses from the following

PSY 230 Human Growth and Development	4
PSY 265 Social Psychology	3
PSY 341 Principles of Learning	3
PSY 455 Abnormal Psychology	3
PSY 467 Psychology of Prejudice	3

Psychology electives to bring to a total of 18 credits

Note

A minimum of 6 upper division credits (300-400 level) in the minor must be earned on campus. A maximum of 10 credit hours may be transferred for the minor from other institutions. At least 50 percent of the minor coursework must be at the 300-400 level.

Minor in Sociology**Program Requirements**

Required credits	3
Required elective credits	14
Elective credit	1
Total credits required for this minor	18

Required Credits — 3 semester hours

SOC 100 Principles of Sociology	3
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Required Elective Credits — 14**Select two of the following:**

SOC 235 Social Change	3
SOC 237 Sociology of Minorities	3
SOC 330 Social Organizations	3
SOC 332 Social Psychology	3
SOC 333 Social Class and Inequality	3

Select from any remaining sociology courses

Note that nine hours of the minor must be 300- or above-level courses.

Minor in Spanish**Program Requirements**

Required credits	21
Required elective credits	3
Total credits required for this minor	24

Required Credits — 21 semester hours

SPAN 201 Intermediate Spanish I	3
SPAN 202 Intermediate Spanish II	3
SPAN 301 Spanish Grammar	3
SPAN 302 Spanish Composition	3
SPAN 303 Spanish Conversation	3
SPAN 304 Introduction to Hispanic Literature	3

Select one of the following:

SPAN 321 Spanish Civilization and Culture	3
SPAN 331 Latin American Civilization and Culture	3

Required Elective Credits — 3 semester hours

SPAN 350 Masterpieces of Spanish Literature	3
SPAN 351 Masterpieces of Latin American Literature	3
SPAN 405 Spanish Phonetics and Dialects	3
SPAN 406 Introduction to Translation	3
SPAN 407 Spanish for Oral Proficiency	3
SPAN 452 Mexican Literature	3
SPAN 453 Spanish Literature of the 20th Century	3
SPAN 454 Latin American Literature of the 20th Century	3
SPAN 455 Readings in Spanish Literature	3
SPAN 456 Spanish and Latin American Short Story	3
SPAN 457 Literature of United States Hispanics	3
SPAN 458 Cervantes	3
SPAN 459 Hispanic Drama	3

Notes

It is recommended that Spanish minors take HIST 118 and either HIST 314 or HIST 315.

All Spanish language courses to be counted for the major and minor must be beyond the first year level.

Courses with the SPAN prefix are taught in Spanish and courses with the HISP prefix are taught in English.

Minor in Speech Communication**Program Requirements**

Required credits	6
Required elective credits	12
Total credits required for this minor	18

Required Credits — 6 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 102 Introduction to Speech Communication	3
SPCO 103 Speaking Evaluation	2

Required Elective Credits — 12 semester hours

Select one from each category:

Interpersonal Communication

SPCO 321 Interpersonal Theory	3
SPCO 323 Intercultural Communication	3
SPCO 324 Family Communication	3

Small Group and Organizational Communication

SPCO 232 Principles of Interviewing	3
SPCO 330 Small Group Communication	3
SPCO 331 Organizational Communication	3
SPCO 431 Communication and Leadership	3

Communication and Influence

SPCO 341 Courtroom Communication	3
SPCO 343 Persuasion	3
SPCO 404 Rhetorical Theory	3
SPCO 444 Argumentation Theory	3

Speech Communication Elective Credits

SPCO 111 Oral Interpretation	3
SPCO 201 Inquiry in Speech Communication	3
SPCO 211 Argumentation and Debate	3
SPCO 212 Professional Speaking	3
SPCO 221 Non-verbal Communication	3
SPCO 350 Communication in the Classroom	3
SPCO 354 Directing Speech Communication Activities	3

Notes

Students are encouraged to design their program to facilitate enhancement of their communicative skills and broaden their understanding of communication content in preparation for their professional career. A minimum of 9 semester credits in electives must be in 300- or 400-level courses.

The department requires that a Speech Communication advisor be designated when completing the "Change of Major/Minor form" available in the department office, Candelaria Hall 121. A minor should be declared no later than the junior year to facilitate graduating on schedule.

Minor in Writing**Program Requirements**

Required credits	6
Required elective credits	12
Total credits required for this minor	18

The Writing Minor is a cross-disciplinary, undergraduate program designed to improve student writing abilities and, thereby, employment opportunities. Students study the writing process as well as the particular requirements of writing in different disciplines, including the arts and sciences, business, education and professional fields.

Students who complete this minor should have competence in more than one kind of writing. Thus, they should have enhanced opportunities for successful careers in a wide variety of fields, including professional writing.

Required Credits — 6 semester hours

ENG 203 The Essay	3
ENG 319 Advanced Expository Techniques	3

Required Elective Credits — 12 semester hours*Business Administration Computer Systems*

BA 205 Business Communications	3
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Educational Technology

ET 504 Instructional Materials Design	3
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Note that undergraduates must have advisor and instructor consent.

English

ENG 225 Communications on a Theme	3
ENG 227 Technical Writing	3
ENG 240 Introduction to Creative Writing: Poetry or Fiction or Drama (may be repeated under the different subtitles as listed)	3
ENG 340 Creative Writing — Advanced: Poetry or Fiction or Drama (may be repeated under the different subtitles as listed)	3
ENG 513 Professional Renewal	3

Note that undergraduates must have advisor and instructor consent.

History

HIST 399 Introduction to Historical Research	3
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Journalism and Mass Communications

JMC 210 Newswriting	3
JMC 410 Advanced News and Feature Writing	3

Science

SCI 291 Scientific Writing	3
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Notes

The elective coursework must be designed with and approved by a writing minor advisor. Only one independent study course will be permitted in this program.

ENG 122 and 123 or equivalent are prerequisites of the minor.

For further information and an updated list of offerings, contact the Writing Minor director in the English Department, 970-351-2971.

Programs of Study

College of Business Administration

Business Major Requirements	119	Management	126
Accounting	122	Marketing	127
Computer Information Systems	123	International Trade and Commerce	128
Finance	124	Minors	129
General Business	125		

Location: Kepner 2053 **Telephone:** 970-351-2764
Dean: Robert M. Lynch **Associate Dean:** Joe F. Alexander

The College of Business Administration offers a Bachelor of Science Degree in Business Administration with opportunities for students to pursue specialized study in the emphasis areas of Accounting, Computer Information Systems, Finance, Management, and Marketing, as well as in General Business Administration. The College also offers minors in Business Administration and Computer Information Systems and jointly offers (with the College of Arts and Sciences) a Bachelor of Arts Degree in Interdisciplinary Studies with an emphasis in International Trade and Commerce.

The College of Business Administration was established in the summer of 1968 as an autonomous degree-recommending unit, with a primary mission to provide education for business administration. Since that time, the College has become an integral part of the University and is committed to advancing the Mission, Goals and Values of UNC (as specified in earlier pages of this Bulletin). The College's own mission statement has been developed to support that of the University.

Mission Statement

The College of Business Administration contributes to the mission of the University through its undergraduate instructional programs in business administration and through faculty scholarship and service.

The College's primary objective is to provide high quality undergraduate instruction. With its foundation in the liberal arts, the business curriculum examines contemporary business and management practices and weighs the opportunities and challenges of competing in a global marketplace. Technology applications are woven through the curriculum.

Faculty scholarship and service are also important objectives. While these activities often contribute to faculty and economic development, the College supports them to enhance classroom teaching and to extend our students' opportunities for employment and placement in graduate programs.

COBA Advising Center

Location: Kepner 1055 **Telephone:** 970-351-1233
Director: Robert Elton, COBA Advising Center and Chair, General Business
Student Specialist: Margaret Rusch,

The College of Business Administration Advising Center provides admission and academic advising services to all General Business majors and Business Administration minors, as well as supplementary services for all other COBA academic programs and departments. The Advising Center monitors all admissions, transfer credits and continuation requirements. It administers the COBA Honors Programs for the College and also provides students with information on graduate study in Business Administration.

Accounting Department

Location: Kepner 2090 **Telephone:** 970-351-2855
Chair: Martha Lilly

Professors: Paul Bohrer, M.S., C.P.A.; John Elsea, Ph.D., C.P.A.; Allen McConnell, M.S., C.P.A.; Ronald Reed, Ph.D., C.P.A.

Associate Professors: Bill Cox, Ph.D., C.P.A.; Joseph Donelan, Ph.D., C.P.A.; Martha Lilly, Ph.D., C.P.A.; John Stewart, Ph.D., C.P.A.

Assistant Professors: Robert Elton, M.A., C.P.A.; Terri Gutierrez, Ph.D., C.P.A.

Computer Information Systems Department

Location: Kepner 95 **Telephone:** 970-351-2089
Chair: Charmayne Cullom

Professors: Charmayne Cullom, Ph.D.; William Duff, Jr., Ph.D.; Robert Lynch, Ph.D.; Steve Teglovic, Jr., Ph.D.

Associate Professors: R. John Freese, Ph.D.; Jay Lightfoot, Ph.D.; Tod Sedbrook, Ph.D.

Finance Department

Location: Kepner 1090 **Telephone:** 970-351-2275
Chair: John Clinebell

Associate Professors: Garth Allen, J.D., CPCU; John Clinebell, D.B.A.; Glen Droegemueller, J.D.

Assistant Professors: Greg Kuhlemeyer, Ph.D.; Rutilio Martinez, Ph.D.; Christine McClatchey, Ph.D.

Monfort Distinguished Professor: Junius Peake

Monfort Executive Professor: Lee Korins

General Business Department

Location: Kepner 1055 **Telephone:** 970-351-1233
Chair: Robert Elton

Management Department

Location: Kepner 1090 **Telephone:** 970-351-2088
Chair: Sharon Clinebell

Professors: Sharon Clinebell, D.B.A.; James Clinton, Ph.D.; Karen Fowler, Ph.D.; D. Lynn Hoffman, Ph.D.; Daniel Rowley, Ph.D.

Monfort Executive Professor: Gerald Shadwick, J.D.

Marketing Department

Location: Kepner 2090 **Telephone:** 970-351-2366
Chair: Nathan D. Kling

Associate Professors: Joe F. Alexander, D.B.A.; Robert C. Harris, M.A.; Nathan D. Kling, Ph.D.; Denny McCorkle, D.B.A.; R. Viswanathan, Ph.D.

Business Major Requirements

Admission Requirements

Freshman students are admitted to the College of Business Administration if they unconditionally meet the Colorado Commission of Higher Education (CCHHE) requirement for admission to a level II Colorado institution. This admission requirement is presently set at a CCHHE composite index of 92.

The CCHHE composite index is a sliding scale based on achievement test score and high school rank. A 92 index score centers on an ACT score of 22 or SAT of 910 and graduation in the top 40 percent of the high school class. A 92 index score is maintained at lower test scores or class rank provided that the candidate has offset a lower qualification on one measure with a higher qualification on the other.

Transfer students are admitted to the College of Business Administration provided that they meet the admission requirements in place at the time of application. Students who transfer with less than 30 semester hours of college level coursework may qualify for admission to the UNC College of Business Administration provided they meet the freshman admission requirements specified above.

International students are admitted to the College of Business Administration if they meet the University admission requirements noted above and score 540 or higher on the TOEFL. International students can obtain additional information about admissions from the COBA Advising Center, (970) 351-1233.

Change of Major/Minor Requirements

UNC students may change their major to business or may change from one business emphasis area to another provided that:

a. They have completed 30 semester hours of university level coursework with at least 15 semester hours at UNC.

b. They meet the Change of Major and Minor requirements established by the department in which they wish to take their business emphasis. Copies of these requirements are available in COBA department offices and at COBA's Advising Center.

Students enrolled in the Fresh Start Program should contact COBA's Advising Center for information on program-specific policies regarding admission to COBA. The College of Business Administration uses grades from all classes taken at UNC when computing the student's GPA.

UNC students with less than 30 semester hours of university level coursework may change to a business major or minor provided that they had met the freshman entry requirement specified above for admission to COBA and are in good academic standing at UNC.

Students must meet all departmental entrance requirements in effect at the time they apply for their business major or minor.

Graduation Requirements

To graduate with a baccalaureate degree in Business Administration a student must:

1. complete a minimum of 126 semester hours of University coursework.
2. satisfy the following requirements:
 - a. University requirements (e.g., English essay, General Education, etc.) and;
 - b. College of Business Administration requirements (e.g., Business Core, Other Required Courses, Emphasis Area Requirements, etc.) and; c. elective coursework to bring the total to at least 126 semester hours.
3. meet the following course distribution requirements:

At least 50 percent of a student's coursework required for the degree must be comprised of non-business courses (courses without a BA _ _ prefix.) To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.
4. at least 50 percent of the credit hours in Business Administration required for the degree must be earned at UNC.
5. attain a 2.0 or greater cumulative Business GPA and attain at least a "C" grade in each course in the Business Administration Core. To graduate with a Business minor, a student must attain a 2.0 or greater cumulative business GPA or attain a grade of "C" or better in every course required for the minor. To graduate with a Computer Information Systems minor, a student must attain at least a "C" grade in each course required for the minor.

These requirements apply to the total credits required to complete a business degree regardless of whether the courses were taken at UNC or in transfer.

English Essay Exam

Every student must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and may be retaken any number of times. There is a fee to retake the examination. Additional information can be obtained from the English Department, Michener L50, phone 970-351-1576.

Second Bachelor's Degree

Students who have previously earned a Bachelor's Degree and seek to earn a second Bachelor's Degree in Business Administration must complete a minimum of 36 semester hours at UNC. Individuals should contact the COBA Advising Center for more information on the Second Bachelor's Degree option.

Three-Year Degree Program (Accelerated Business Scholars)

The College offers talented and promising Business Administration majors the opportunity to complete their Bachelor's Degree in three years instead of four. Students admitted into the Accelerated Business Scholars program take 18 semester credits each Fall and Spring semester and 6 semester credits in each summer session. This allows students to complete 42 semester credits per year, completing the 126 required credits in only three years. The program is open to freshmen and transfer students with less than 30 semester credits who have a CCHE index score of 118 or higher. This index is equivalent to a 3.75 high school GPA and an ACT score of 27. Re-entry students who have not attended a university for at least 5 years may transfer into the program after completing at least 12 UNC credits with a 3.25 GPA. To apply, students should contact the COBA Advising Center.

Evening Program

Business courses required to complete the Business Core, the Business Minor and the emphasis in General Business are offered at night. All courses required within the Business Core and the Business Minor are offered once each year. Courses required for the emphasis in General Business are offered once every three semesters (excluding the summer terms). Students may obtain a schedule of COBA's evening classes at the COBA Advising Center, Kepner 1055, phone 970-351-1233.

Continuation Requirements

Students must attain a 2.0 ("C") cumulative grade point average in the coursework taken in COBA. Students achieving less than the required cumulative grade point average may be denied continuation of their business program.

Transfer Credit

Credit from other Colorado institutions as specified in the UNC Transfer Guides may be transferred at the time of admission to the College of Business Administration. Transfer credit from other institutions will be evaluated for acceptance towards a UNC degree on an individual basis. Each emphasis notes the limits on transfer credit. The College requires that at least 50 percent of the business credit hours required for the degree in Business Administration must be earned at UNC.

UNC Business majors who plan to earn credit toward their degree from another institution must obtain prior written approval from their department chair.

Time Limitation on Credit Earned Toward a Bachelor's Degree

Coursework completed by a student within the preceding 10 years may apply as credit toward a bachelor's degree. However, coursework taken before the 10-year limit will not count as credit toward the bachelor's degree.

Course Prerequisites

The student is held responsible for having met the prerequisites in all business courses for which he or she has registered. Students who register for classes in which they do not have the prerequisites may be dropped from the course at any time by the instructor, department chair, or dean.

Students will be dropped from all upper division (300- or 400-level) business courses if they have not reached junior standing (at least 60 semester credits) before the first class meeting.

Academic Honesty

COBA students are expected to conduct themselves in accordance with the highest standards of academic honesty. Cheating, plagiarism, illegitimate possession and disposition of examinations, alteration, forgery, or falsification of official records or documents and similar acts or the attempt to engage in such acts are grounds for disciplinary action. This action can include any of the following, in addition to any University disciplinary action:

1. A failing grade for an assignment.
2. A failing grade for a course.
3. Suspension from the College of Business Administration.
4. Expulsion from the College of Business Administration.

Students are referred to the *UNC Student Handbook* as to details of "University Standards of Conduct" and "Academic Expectations."

Cooperative Graduate Program with Colorado State University

The UNC College of Business Administration has established a cooperative MBA program with Colorado State University. Students may enroll and complete part of their coursework through UNC's College of Business Administration. Courses are offered in both the day and evening programs at UNC.

Information about the program can be obtained from the COBA Advising Center or at CSU's College of Business Administration.

University of Colorado at Denver MBA Program

Through a joint agreement with UNC, the University of Colorado at Denver offers their MBA program at UNC in Greeley. The arrangement involves live, two-way videoconferencing between students in Greeley and the professor/students in Denver. In return, UNC offers undergraduate classes to the CU-Denver campus using the same technology. The MBA degree will be from CU-Denver, who is also responsible for enrollment decisions into the MBA program. Students may obtain information on this program through the COBA Advising Center, Kepner 1055, phone 970-351-1233.

Incomplete Grades

A grade of "I" is assigned when coursework is complete at the end of the semester and is used only when a student cannot fulfill his or her academic responsibilities during the last week of a semester or because he or she missed the final examination due to sickness, emergency in the family, or other serious emergency.

International Studies Programs

The College of Business Administration works closely with the Department of Foreign Languages and the Department of Hispanic Studies in the College of Arts and Sciences to prepare students for careers in international business. Preparing students to assist Colorado businesses to compete effectively in the North American Free Trade area is of particular concern to the College of Business Administration. Interested students may pursue either of two options:

- 1) a business major, combined with a language/area studies minor. Students that select this option, combine a business specialization with a language minor and additional coursework in the history, politics and culture related to the area of language study; or
- 2) an International Trade and Commerce (ITC) major. Students who choose this option work toward a Bachelor of Arts in Interdisciplinary Studies which combines coursework in Business, Economics and Foreign Language. Interested students should see the program requirements specified elsewhere in this Bulletin.

Faculty advisors in the COBA Advising Center (970) 351-1233 are available to guide students in considering appropriate international business study options.

Student Organizations

Students enrolled in the College of Business Administration have the opportunity to join a number of business clubs and organizations. Each of the organizations listed below is chartered by the College to assist students to prepare for careers in their discipline areas. Beyond this, business clubs provide hubs for student social activities within the College.

Student Club	Faculty Advisor	Department Affiliation	National Affiliation
Professional Accounting Association of UNC	Dr. Ron Reed	Accounting	
Computer Management Association	Dr. Charmayne Cullom	CIS	Data Processing Management Association
Financial Management Association of UNC	Dr. John Clinebell	Finance	Financial Management Association
UNC Management Club	Dr. Sharon Clinebell	Management	Society for Advancement of Management
Marketing Association	Dr. Denny McCorkle	Marketing	American Marketing Association
Delta Sigma Pi	Dr. Glenn Droegemueller	College of Business Administration	National Chapter
Beta Alpha Psi	Dr. Joseph Donelan	Accounting Chapter	National Chapter
Beta Gamma Sigma	Dr. Bill Cox	College of Business Administration	American Assembly of Collegiate Schools of Business
Alpha Kappa Psi		College of Business Administration	National Chapter

In addition, the College of Business Administration Student Representative Council (COBA/SRC) advises the Dean on matters of student concern and schedules college-wide events. This council is comprised of the Presidents of the student clubs listed above.

Bachelor of Science in Business Administration Emphasis in Accounting

Program Requirements

Required Program/Major Credits:

Business Administration core	33
Required credits	24
Supporting credits	6-7
Required elective credits	3
General Education credits:	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

The primary mission of the Department of Accounting is to provide high quality undergraduate instruction leading to a baccalaureate degree in Business Administration with an emphasis in Accounting. The Accounting faculty are committed to educating students to function as effective and contributing members of the accounting profession, business community, or graduate programs. Additionally, as an integral part of the College of Business Administration, the Accounting faculty are committed to the College's mission, objectives and programs.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.	

Required Credits — 24 semester hours

BAAC 320 Intermediate Accounting I	3
BAAC 321 Intermediate Accounting II	3
BAAC 323 Cost and Managerial Accounting I	3
BAAC 328 Accounting Systems	3
BAAC 420 Advanced Accounting I	3
BAAC 421 Advanced Accounting II	3
BAAC 425 Auditing I	3
BAAC 428 Income Tax I	3

Supporting Credits — 6-7 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
MATH 131 Calculus and Analytic Geometry I or	
MATH 176 Topics in Calculus	3-4
<i>(MATH 176 is recommended)</i>	

Required Elective Credits — 3 semester hours

BAAC 324 Cost and Managerial Accounting II	3
BAAC 326 Governmental and Institutional Accounting	3
BAAC 426 Auditing II	3
BAAC 429 Income Tax II	3

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

BA 205 Business Communications or	
ENG 123 College Research Paper	3
Category 2 — Mathematics	
MATH 124 College Algebra or	
MATH 175 Topics in Finite Mathematics	3-4
Category 5 — Social Sciences	

The following courses are required for the Accounting emphasis:

ECON 103 Introduction to Economics; Macroeconomics	3
ECON 105 Introduction to Economics; Microeconomics	3
One of the following two courses:	
SOC 100 Principles of Sociology	3
PSY 120 Principles of Psychology	4
One of the following two courses:	
PSCI 100 United States Government	3
PSCI 105 Introduction to Political Science	3

Notes

The emphasis in accounting and the Accounting Department are approved under the State Accounting Law of Colorado. Upon Completion of the accounting emphasis, the student qualifies to write the CPA and other professional examinations. Students completing the program are able to qualify for a broad range of jobs including public accounting, industrial accounting, governmental and other not-for-profit accounting.

At least 50 percent of a Business major's coursework required for the degree must be comprised of non-business courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.

Students who take BA 205 instead of ENG 123 may count a maximum of 27 semester hours of upper division (300- or 400-level) accounting courses toward the University requirement of 126 hours for graduation (BAAC prefix). Students taking ENG 123 may count 30 semester hours toward the 126 hour graduation requirement.

In addition to fulfilling the basic requirements for the Bachelor of Science degree in Business Administration, a graduation requirement is the achievement of a grade point average of 2.00 for all upper division (300- or 400-level) accounting (BAAC) courses completed at the University of Northern Colorado. The Accounting Department will administer a required assessment examination to each graduate during the semester of expected graduation.

A student transferring from another four-year institution shall be allowed to transfer a maximum of nine semester hours of upper division accounting courses (300- and 400-level).

BAAC 220 and BAAC 221 will not count toward the satisfaction of the grade point requirement and the "C" or better course prerequisites (as indicated in the course descriptions) must be satisfied. Students will be dropped from any class at any time during the semester if it is found they do not meet the prerequisites in the course descriptions.

Credit hours for courses that are retaken do not count more than once toward the 126 credit hour requirement for graduation. However, if a student receives a final grade each time he or she has enrolled in a course, both grades are used in calculating the student's cumulative, business and accounting grade point averages.

Bachelor of Science in Business Administration

Emphasis in Computer Information Systems

Program Requirements

Required Program/Major Credits:

Business Administration core	33
Required credits	21
Supporting credits	6-7
Required elective credits	6
General Education credits:	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

The Computer Information Systems emphasis prepares students to investigate, design and develop computer systems for business. Particular attention is paid to the strategic nature of technology. In the CIS program, students acquire knowledge of computer programming, micro and mainframe computers, data communications, systems analysis and design, database management systems and decision support systems.

Graduates of the CIS program usually enter the job market as programmers/analysts or networking personnel. Subsequent positions may include systems analysts, database administrators and data communications specialists. For the most part, the graduate's activities will focus on creating and implementing software and procedures used to service large and small organizations including manufacturing, retail, wholesale, financial, insurance, communications and government groups.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* <i>BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.</i>	

Required Credits — 18 semester hours

Take two of the following:

BACS 285 Business COBOL Programming	3
BACS 286 Structured Programming and Applications for Business	3
BACS 287 Graphical Interface Programming	3
<i>(If all three are taken one will count toward 3 hours of required electives.)</i>	
BACS 380 Networking and Data Communications Systems	3
BACS 390 Business Statistics II	3
BACS 485 Database Management Systems	3
BACS 487 Systems Analysis and Design	3

Supporting Credits — 6-7 semester hours

SPCO 100 Basics in Public Speaking	1
SPCO 103 Speaking/Evaluation	2
MATH 131 Calculus and Analytic Geometry I	
or	
MATH 176 Topics in Calculus	3-4
<i>(MATH 176 is recommended)</i>	

Required Elective Credits — 9 semester hours

BACS 381 Object-Oriented Systems	3
BACS 392 Systems Platforms	3
BACS 482 Management Support Systems	3
BACS 486 Advanced Database Management	3
BACS 488 Senior CIS Project	3
BACS 495 Special Topics in CIS	3-6

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

BA 205 Business Communications	
or	
ENG 123 College Research Paper	3

Category 2 — Mathematics

MATH 124 College Algebra	
or	
MATH 175 Topics in Finite Mathematics	3-4

Category 5 — Social Sciences

ANT 100 General Anthropology	3
ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
GEOG 100 World Geography	3
PSCI 100 United States Government	3
PSCI 105 Introduction to Political Science	3
PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3

Note that students are required to take ECON 103 and ECON 105 and two additional courses listed in Category 5.

Notes

At least 50 percent of a Business major's coursework required for the degree must be comprised of non-business courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.

BACS 495 Special Topics in CIS may be repeated. A maximum of 6 credits may be applied to the student's degree program. With the written approval of the CIS Department chair, an Executive Professor Special Topics course may be substituted for BACS 495 Special Topics in CIS.

In addition to the basic requirements listed for the Bachelor of Science in Business Administration at the beginning of this section, a grade of "C" or better must be earned in each course in the Business Administration Core and all required and elective credits listed in the CIS emphasis for the courses to count toward graduation.

A maximum of 12 semester credits in 300/400-level required and elective emphasis courses can be transferred from another four-year institution.

Bachelor of Science in Business Administration Emphasis in Finance

Program Requirements

Required Program/Major Credits:

Business Administration core	33
Required credits	18
Supporting credits	6-7
Required elective credits	9
General Education credits:	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

The primary focus of the finance emphasis is to provide students with a theoretical and practical exposure to all areas of finance: financial management, financial institutions and markets, and investments.

The emphasis in finance prepares students for careers in financial management of organizations and financial institutions. Graduates are prepared for entry level positions in financial management of large and small businesses, financial institution positions, investment related positions and financial planning. In addition, students may sit for the Chartered Financial Analyst (CFA) exam, the Certified Financial Management exam, or the Certified Financial Planning (CFP) exam (see notes below) after successful completion of the finance major.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.	

Required Credits — 18 semester hours

BAAC 320 Intermediate Accounting I	3
BACS 390 Business Statistics II	3
BAFN 371 Financial Markets and Institutions	3
BAFN 470 Financial Management	3
BAFN 471 Investments	3
BAFN 474 Case Problems in Financial Management	3

Supporting Credits — 6 to 7 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
MATH 131 Calculus and Analytic Geometry I	
or	
MATH 176 Topics in Calculus	3-4
(MATH 176 is recommended)	

Required Elective Credits — 9 semester hours

BAFN 340 Principles of Risk and Insurance	3
BAFN 372 Introduction to Real Estate	3
BAFN 442 Topics in Financial Planning	3
BAFN 473 Commercial Bank Management	3
BAFN 475 Multinational Financial Management	3
BAFN 478 Student Alumni Foundation Fund	3
BAFN 479 Security Analysis	3

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition	
BA 205 Business Communications	
or	
ENG 123 College Research Paper	3
Category 2 — Mathematics	
MATH 124 College Algebra	
or	
MATH 175 Topics in Finite Mathematics	3-4
Category 5 — Social Sciences	
ANT 100 General Anthropology	3
ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
GEOG 100 World Geography	3
PSCI 100 United States Government	3
PSCI 105 Introduction to Political Science	3
PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3

Note that students are required to take ECON 103 and ECON 105 and two additional courses listed above.

Notes

At least 50 percent of a Business major's coursework required for the degree must be comprised of non-business courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.

BAFN 495 Special Topics or any Executive Professor class may be substituted for a finance elective with the approval of the Finance Department chair.

A maximum of 9 semester credits in 300/400-level required and elective emphasis courses can be transferred from other four-year institutions.

In order to meet the requirements necessary to sit for the CFP exam, a finance major must take the following elective courses: BAFN 340, BAFN 441, BAFN 442, BAFN 479 and BAAC 428.

In addition to fulfilling the basic requirements for the Bachelor of Science degree in Business Administration, a grade of "C" or better must be earned in the Required and Elective course categories in order for the courses to count toward graduation.

Bachelor of Science in Business Administration

Emphasis in General Business

Program Requirements

Required Program/Major credits:

Business Administration core	33
Required credits	27
Supporting credits	6-7
Required elective credits	0
General Education: credits:	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

Students complete course work in each of the functional areas of business: accounting, finance, computer information systems, management and marketing.

The general business emphasis is designed to prepare students for a broad range of entry-level positions in business organizations. The program is not intended to provide specialized study. The broad-based nature of the curriculum makes the General Business program appropriate for students intending to manage a family-owned or small business.

Courses required for the general business emphasis are also offered through the evening division program on a three semester cycle. Information on the evening division program may be obtained from the COBA Advising Center in Kepner 1055, 970-351-1233.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* <i>BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.</i>	

Required Credits — 27 semester hours

BAAC 327 Managerial Accounting	3
BACS 390 Business Statistics II	3
BAFN 332 Business Administration and the Law	3
BAFN 340 Principles of Risk and Insurance	3
BAFN 470 Financial Management	3
BAMG 353 Human Resources Management	3
or	
BAMG 357 Managing New Business Ventures	3
BAMG 354 Organizational Behavior	3
BAMK 368 Marketing Analysis and Research	3
BAMK 464 Global Marketing Strategies	3

Supporting Credits — 6 or 7 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
MATH 131 Calculus and Analytic Geometry I	
or	
MATH 176 Topics in Calculus	3-4
<i>(MATH 176 is recommended)</i>	

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition	
BA 205 Business Communications	
or	
ENG 123 College Research Paper	3
Category 2 — Mathematics	
MATH 124 College Algebra	
or	
MATH 175 Topics in Finite Mathematics	3-4
Category 5 — Social Sciences	
ANT 100 General Anthropology	3
ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
GEOG 100 World Geography	3
PSCI 100 United States Government	3
PSCI 105 Introduction to Political Science	3
PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3

Note that students are required to take ECON 103 and ECON 105 and two additional courses listed in Category 5.

Notes

At least 50 percent of a Business major's course work required for the degree must be comprised of nonbusiness courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 nonbusiness credits in order to be eligible for graduation.

With the written approval of the General Business chair, students may make the following elective course substitutions: 1) Students may substitute a senior level Special Topics course taught by an Executive Professor for an elective course with the same departmental prefix. 2) Students with a 3.0 or higher grade point average may substitute BAMG/BAMK 407 Small Business Counseling for the BAMG or BAMK elective course.

No more than 9 semester hours of 300/400-level courses can be transferred in for the General Business program required courses.

Bachelor of Science in Business Administration Emphasis in Management

Program Requirements

Required Program/Major Credits:

Business Administration core	33
Required credits	12
Supporting credits	6-7
Required elective credits	15
General Education: credits	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

The focus of the major is on learning how to plan, direct, and control resources such as people, time, capital, raw materials, and equipment. This focus will require the student to examine and understand issues and problems that confront society. The student will learn how to manage, motivate, and direct employees and organizations.

The outcome of this program is the preparation for entry level managerial or administrative positions in business or governmental agencies. Such positions include management trainees, supervisors, administrators, and other entry level positions.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* <i>BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.</i>	

Required Credits — 12 semester hours

BACS 390 Business Statistics II	3
BAMG 353 Human Resources Management	3
BAMG 354 Organizational Behavior	3
BAMG 457 Managing Complex Organizations	3

Supporting Credits — 6 to 7 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
MATH 131 Calculus and Analytic Geometry I	
or	
MATH 176 Topics in Calculus	3-4
<i>(MATH 176 is recommended)</i>	

Required Elective Credits — 15 semester hours

BAAC 327 Managerial Accounting	3
BAFN 470 Financial Management	3
BAMG 357 Managing New Business Ventures	3
BAMG 452 Business, Government and Society	3
BAMG 453 Advanced Topics in Human Resource Management	3
BAMG 455 Industrial Relations	3
BAMG 458 Managing in a Global Environment	3
BAMG 459 Seminar in Organizational Development	3
BAMK 407 Small Business Counseling	
or	
BAMG 407 Small Business Counseling	3

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

BA 205 Business Communications

or

ENG 123 College Research Paper

Category 2 — Mathematics

MATH 124 College Algebra

or

MATH 175 Topics in Finite Mathematics

Category 5 — Social Sciences

ANT 100 General Anthropology

ECON 103 Introduction to Economics: Macroeconomics

ECON 105 Introduction to Economics: Microeconomics

GEOG 100 World Geography

PSCI 100 United States Government

PSCI 105 Introduction to Political Science

PSY 120 Principles of Psychology

SOC 100 Principles of Sociology

Note that students are required to take ECON 103 and ECON 105 and two additional courses listed above: It is recommended that students with a Management emphasis take PSY 120 and SOC 100.

Notes

At least 50 percent of a business major's coursework required for the degree must be comprised of non-business courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.

In addition to the basic requirements listed for the Bachelor of Science in Business Administration at the beginning of this section, a grade of "C" or better must be earned for any of the courses listed in the above two categories (Required Credits — 12 semester hours; and Required Elective Credits — 15 semester hours) in order for the courses to count toward graduation.

A maximum of 9 semester credits in 300/400-level required and elective emphasis courses can be transferred from other four-year institutions.

Special Topics or Executive Professor courses may substitute for an elective upon approval of the Management Department Chair.

BAMG 453, BAMG 455 and BAMG 459 are not offered on a regular basis.

Bachelor of Science in Business Administration Emphasis in Marketing

Program Requirements

Required Program/Major Credits:

Business Administration core	33
Required credits	12
Supporting credits	6-7
Required elective credits	15
General Education credits:	
Specified	18-19
Remaining	22
Elective credits	18-20
Total credits required for this degree	126

In a highly competitive, global marketplace it is essential that organizations understand and rapidly respond to the needs of their customers. To develop and maintain sustainable competitive advantage, it is essential that organizations understand how to identify target markets and develop marketing strategies that will provide satisfaction to those markets. To do this organizations employ individuals who can analyze markets and develop comprehensive marketing programs, which include product, promotion, pricing, and distribution strategies. A Bachelor of Science degree in Business Administration with an emphasis in Marketing equips students with the knowledge and necessary skills to succeed in careers which require that they develop and implement marketing strategies.

There are a wide variety of career paths in organizations open to graduates in marketing. Marketing is a significant functional area in virtually all modern organizations. A sample of Marketing career areas may include the following: product management, retail management, marketing research, distribution management, logistics management, industrial buying, direct marketing, international marketing, promotion management, professional selling, sales management and advertising management. Graduates are prepared for marketing careers in public, private, governmental and non-profit organizations.

Business Administration Core — 33 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
* BAMG 456 Strategic Management and Business Policy	3
BAMK 360 Marketing	3
* BAMG 456 is the capstone course for Business majors and is designed to be taken in the student's last semester. The prerequisites for this course are: BAAC 221, BACS 291, BACS 395, BAFN 370, BAMG 350 and BAMK 360. Only BACS 395 may be taken concurrently.	

Required Credits — 12 semester hours

BAMK 361 Consumer Behavior	3
BAMK 368 Marketing Analysis and Research	3
BAMK 462 Marketing Problems	3
BAMK 464 Global Marketing Strategies	3

Supporting Credits — 6-7 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2
MATH 131 Calculus and Analytic Geometry I or MATH 176 Topics in Calculus	3-4
(MATH 176 is recommended)	

Required Elective Credits — 15 semester hours

Take a total of five (5) courses from the 300- and 400-level courses with a minimum of two (2) from the 400-level courses.

BAMK 363 Promotional Strategy	3
BAMK 364 Selling and Sales Management	3
BAMK 365 Advertising	3
BAMK 366 Retailing	3
BAMK 407 Small Business Counseling or BAMG 407 Small Business Counseling	3
BAMK 461 Advertising Campaigns	3
BAMK 468 Business-to-Business Marketing	3
BAMK 469 Distribution Logistics	3
BAMK 470 Direct Marketing	3
BAMK 495 Special Topics in Marketing	3

Note that BAMK 495 may be used only once to satisfy the 400-level elective requirement.

General Education Credits, Specified — 18-19 semester hours

Category 1b — Intermediate Composition

BA 205 Business Communications or ENG 123 College Research Paper	3
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Category 2 — Mathematics

MATH 124 College Algebra or MATH 175 Topics in Finite Mathematics	3-4
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Category 5 — Social Sciences

ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3
GEOG 100 World Geography	3
PSCI 100 United States Government	3
PSCI 105 Introduction to Political Science	3
PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3

Note that students are required to take ECON 103 and ECON 105 and two additional courses listed in Category 5. It is recommended that students with an emphasis in Marketing take PSY 120 and SOC 100.

Notes

At least 50 percent of a Business major's coursework required for the degree must be comprised of non-business courses (courses without a BA __ prefix). To comply, a student must have completed at least 63 non-business credits in order to be eligible for graduation.

Students must take five courses (15 hours) from the 300/400 level Marketing courses listed above. At least two of the courses (6 hours) taken must be at the 400 level.

Students may substitute a BA 495: Executive Professor Special Topics II course for an elective course with prior written permission from the Marketing Department Chair.

A maximum of 9 semester hour credits in 300/400-level required and elective emphasis courses may be transferred from other four-year institutions.

Students are reminded that to graduate with a Business Administration major, a student must attain a 2.00 or greater cumulative Business GPA and attain at least a "C" grade in each course in the Business Administration Core.

In addition to fulfilling the basic requirements for the Bachelor of Science degree in Business Administration, a grade of "C" or better must be earned in the Required and Required Elective course categories in order for the courses to count toward graduation.

Bachelor of Arts in Interdisciplinary Studies

Emphasis in International Trade and Commerce

Program Requirements

Required Program/Major credits:

International Trade Commerce core	33
Business Administration credits	33-34
Recommended electives	3-9
General Education credits:	
Specified	9-10
Remaining	31
Elective credits	3-12
Total credits required for this degree	120

The International Trade and Commerce (ITC) is a cooperative program of the College of Arts and Sciences and the College of Business Administration. Students interested in this program must declare a business major and should see an advisor in the College of Business Administration Advising Center.

The ITC emphasis area will develop a better understanding of international trade and commerce by building upon coursework in economics, foreign language and business. This program is designed for students that intend to join firms or public agencies that operate or have interests outside the United States. The program combines language, cultural and political studies focused on a particular country or geographic area with an exposure to basic business subjects.

ITC Core — 33 Semester hours

Language and/or Proficiency	12
ECON 300 Microeconomics	
and	
ECON 345 International Trade	
or	
ECON 350 Macroeconomics	
and	
ECON 346 International Finance	6
Thesis	3
Area Studies	12

Note that area studies courses must be approved by the student's advisor and might include coursework from anthropology, history, geography, political science and communications that provide students a foundation to enhance their language training. Language proficiency is estimated to require at least 12 hours of study at the intermediate level or above. Demonstrated proficiency fulfills the language requirement regardless of the actual number of language credits taken. A Thesis (3 semester hours) is an exit requirement for the program. The thesis topic and faculty thesis advisor must be approved by the program director. The student will enroll for the thesis as a directed study in the department of the thesis advisor.

Required Business Administration Credits — 33-34 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment in Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
BAMK 360 Marketing	3
MATH 131 Calculus and Analytic Geometry I	
or	
MATH 176 Topics in Calculus	3-4
<i>(MATH 176 is recommended)</i>	

Recommended Elective Credits — 3-9 semester hours

BAMK 464 International Marketing	3
BAMG 458 International Management	3
BAFN 475 Multinational Financial Management	3

General Education Credits, Specified — 9-10 semester hours

<i>Category 2 — Mathematics</i>	
MATH 124 College Algebra	
or	
MATH 175 Topics in Finite Mathematics	3-4
<i>Category 5 — Social Sciences</i>	
ECON 103 Introduction to Economics: Macroeconomics	3
ECON 105 Introduction to Economics: Microeconomics	3

Notes

Unless specifically exempted, ITC students are subject to the admission, continuation, disciplinary and graduation policies of the College of Business Administration. The ITC program requires a minimum of 120 semester hours. Students may not include more than 60 hours in business coursework to complete the ITC degree. A maximum of 15 semester hours of business courses may be transferred from other institutions.

STUDENTS MUST FORMALLY APPLY TO THE ITC COMMITTEE BEFORE BEING ADMITTED TO THE PROGRAM AND MUST FULFILL THE ADMISSION REQUIREMENTS IN PLACE AT THE TIME OF APPLICATION. STUDENTS MUST DECLARE A BUSINESS MINOR WHEN ENTERING THIS PROGRAM.

Minor in Business Administration**Program Requirements**

Required credits	33-34
General Education credits, specified	12
Total credits required for this minor	33-46

The Business Administration minor is designed for students who have a major in another school or college but wish to pursue a collateral area in Business Administration. Completion of the minor provides broad exposure to the functional areas in Business Administration. These include accounting, computer information systems, finance, management and marketing. The minor is not open to students who major in Business Administration.

The Business Administration minor will range from 33-46 semester hours depending on the student's selections in General Education.

Required Credits — 33 to 34 semester hours

BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAAC 221 Principles of Accounting II	3
BACS 291 Business Statistics I	3
BACS 300 Information Systems	3
BACS 395 Production Management	3
BAFN 231 Legal Environment of Business	3
BAFN 370 Business Finance	3
BAMG 350 Management of Organizations	3
BAMK 360 Marketing	3
MATH 131 Calculus and Analytic Geometry I or MATH 176 Topics in Calculus, 3-4 (MATH 176 is recommended)	

Notes

Students may transfer a maximum of 15 semester hours toward the minor from other institutions. To graduate with a Business minor, a student must attain a 2.0 or better cumulative Business GPA or attain a grade of "C" or better in every course required for the minor.

Students are expected to complete the prerequisites for all courses in the minor. The prerequisites are also part of the General Education program and can be included in General Education preparation. The prerequisites are ECON 105 (BAMK 360), ECON 103 and ECON 105 (BAFN 370) and MATH 175 or MATH 124 (MATH 176 or MATH 131).

Minor in Computer Information Systems**Program Requirements**

Required credits	9
Required elective credits	9
Total credits required for this minor	18

The Computer Information Systems minor is designed for students who wish to pursue collateral work in the computing, technology and communications/networking areas. Completion of the minor prepares a student to successfully employ technology and integrate information systems into his or her career activities. The CIS minor is attractive to students majoring in other areas of Business Administration as well as to majors from other schools and colleges. It complements their work in these other areas. The program is not designed to prepare individuals to become programmers or systems personnel, but does provide a broad exposure to the area of corporate information systems.

Required Credits — 9 semester hours

BACS 286 Structured Programming & App. for Bus	3
BACS 287 Graphical Interface Programming	3
BACS 485 Database Management Systems	3

Required Elective Credits — 9 semester hours

BACS 380 Networking and Data Communications Systems	3
BACS 381 Object Oriented Systems	3
BACS 392 Systems Platforms	3
BACS 482 Management Support Systems	3
BACS 487 Systems Analysis and Design	3
BACS 488 Senior CIS Project	3
BACS 495 Special Topics in CIS	

Notes

Business majors who seek admission to a Computer Information Systems minor must obtain written approval from the College of Business Advising Coordinator.

BACS 495, Special Topics in CIS, may be used to fulfill minor requirements. It may not exceed 3 semester hours.

To graduate with a Computer Information Systems minor, a student must attain at least a "C" grade in each course required for the minor.

Students may transfer a maximum of 9 semester hours toward the minor from other institutions.

Programs of Study

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Location: McKee 125 **Telephone:** 970-351-2817

Dean: Gary R. Galluzzo **Associate Dean:** Michael J. Gimmestad

Associate Dean: Harvey Rude

The College of Education is a professional college offering specialized undergraduate licensure and graduate degree programs in education and related areas to prepare elementary and middle school teachers, special education teachers, early childhood specialists, educational technology personnel and other educational specialists. In addition, the professional education programs are offered for students in secondary and K-12 teacher education programs. Graduate programs are also offered to prepare school administrators, counselors and counseling psychologists for mental health agencies and private practice and to prepare college and university faculty and administrators in a wide range of programs.

The faculty of the College of Education is committed to the serious study of education and the promotion of professional standards to foster innovation in professional preparation. This commitment also encompasses social issues, such as multicultural and ethnic education and increasing public awareness of education in general. The faculty, staff and administration are fully committed to equal opportunity and affirmative action. Multicultural education for all educators is a high priority.

The College of Education is accredited by the National Council for the Accreditation of Teacher Education (NCATE) and all educator preparation programs are approved for licensure by the Colorado State Board of Education.

The College is composed of five units: Division of Educational Leadership and Policy Studies; School for the Study of Teaching and Teacher Education; Division of Professional Psychology; Division of Educational Psychology, Statistics and Technology; and Division of Special Education.

In addition, the School for the Study of Teaching and Teacher Education provides support to the University-wide professional teacher education programs. Other major units in the College are the Center for Applied Research, the Center for Educator Induction, the Center for Educational Leadership, the Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center.

Division of Educational Leadership and Policy Studies

Location: McKee 418 **Telephone:** 970-351-2861

Director: Bruce G. Barnett

The mission of the Division is to develop educators who have the vision and the ability to lead educational organizations by providing needed services to learners in educational settings, creating effective learning environments, effecting policies that govern educational organizations, and modeling continuous learning with and for the citizens of the community. To achieve this mission, ELPS faculty incorporate innovative teaching practices; engage in inquiry about leaders and leadership; and demonstrate leadership at the local, regional, national and international levels.

The ELPS programs and the scholarship of its faculty and students emphasize:

- Formal and informal roles and strategies of educational leaders
- Fiscal, legal and personnel aspects of schools and higher education
- Innovative practices in leadership preparation

- Understanding, facilitating and evaluating the change process
- Innovation and restructuring of schools
- Collaboration in teaching, learning and scholarship
- Adult learning and development and staff development
- Policy development, analysis and implementation
- Service to schools, higher education and policy makers
- Identification of multicultural and gender-based needs

Educational Leadership Program

Location: McKee 418 **Telephone:** 970-351-2861

Professors: Bruce G. Barnett, Ph.D.; Rosemary Caffarella, Ph.D.; Gene E. Hall, Ph.D.; Richard A. King, Ph.D.

Associate Professor: Kathryn Whitaker, Ph.D.

Assistant Professors: Judith H. Berg, Ed.D.; Thomas J. Gavin, Ph.D.

College Student Personnel Administration Program

Location: McKee 418 **Telephone:** 970-351-1682

Professors: Bernard C. Kinnick, Ed.D.; Sue E. Spooner, Ph.D.

Associate Professor: Joyce Washington, Ed.D.

Assistant Professor: Judy Jones, Ph.D.

School for the Study of Teaching and Teacher Education

Location: McKee 216 **Telephone:** 970-351-2908

Director: Harvey Rude, Associate Dean

Director of Student and Program Services: Sandra Weiser

The School for the Study of Teaching and Teacher Education administers programs that prepare students for teacher licensure at the elementary, middle grades and secondary program levels. The School also offers graduate programs in the program areas of Early Childhood Education, Elementary Education, Middle Level Education and Reading.

Early Childhood Education Program

Location: McKee 216 **Telephone:** 970-351-2702

Professor: Phillip Wishon, Ph.D.

Assistant Professors: Marcla Broughton, M.A.; Fong Yun Lee, Ph.D.

Early Childhood Education offers graduate programs at both the masters and doctoral levels. The character of the program and the efforts of the faculty are guided by the perception of young learners and the early childhood profession through developmentally appropriate practices. The programs are based on an interdisciplinary focus which emphasizes fundamental as well as current educational issues, research competencies, professional skills development, and field-based studies.

Elementary Education Program**Location:** McKee 216 **Telephone:** 970-351-2702**Professors:** Fredrick L. Silverman, Ed.D.; Elaine V. Vilscek, Ph.D.**Associate Professors:** Richard L. Needham, Ed.D.; Deborah A. Powell, Ed.D.; Yvonne Siu-Runyan, Ph.D.**Assistant Professors:** Gary Fertig, Ph.D.; Judith Stockhouse, M.A.

Elementary Education offers programs at the undergraduate and graduate levels. These programs provide opportunities for students to become teachers and for experienced teachers to enhance their professional expertise. Faculty in these programs are committed to delivering individualized instruction for students in the degree and/or licensure programs. The philosophy of the programs is based on the premise that learning must be efficiently directed to meet pupils' individual needs through varied teaching modes.

Foundations of Education Program**Location:** McKee 216 **Telephone:** 970-351-2702**Professor:** Michael Jacobs, Ed.D.**Associate Professor:** John Halcon, Ph.D.

The academic and professional purpose that unifies the various approaches to foundations of education is the development of interpretive, normative and critical perspectives on education. Foundational study within education relies heavily on the resources and methodologies of the humanities and the social and behavioral sciences.

The primary objectives of foundational studies at UNC are to provide experiences and perspectives that allow students to explain and evaluate educational issues, practices and policies in a manner that leads to the development of a disciplined sense of professional responsibility.

Foundations courses are a major component in the undergraduate professional education core and in many graduate programs. Courses are open to all undergraduate and graduate students. A student pursuing a doctoral degree in any area may take support courses in Foundations of Education.

Middle Grades Education Program**Location:** McKee 216 **Telephone:** 970-351-2702**Assistant Professors:** Douglas A. MacIsaac, Ed.S.; Adele Sanders, Ph.D.; Barbara Whinery, Ph.D.

The Middle Grades Education program is designed to prepare educators at the Undergraduate and Graduate levels to teach young adolescents, ages ten to fifteen, in middle school grades five through nine. The content of the programs include understanding of human growth and development, effective teaching strategies appropriate for young adolescents, and middle level curriculum that is responsive to the developmental characteristics of young adolescents. The knowledge base of the programs integrates the academic, professional and personal development domains of learners.

Reading Program**Location:** McKee 216 **Telephone:** 970-351-2702**Professors:** Arnold H. Burron, Ed.D.; Roger G. Eldridge, Jr., Ph.D.; Jo-Ann L. Mullen, Ed.D.; Elaine Vilscek, Ph.D.**Associate Professors:** Karen S. Crabtree, Ed.D.; Patricia J. Hagerty, Ed.D.

Reading offers graduate programs at the master's and doctoral levels. The programs in reading/literacy are based on a rationale that through wide reading, writing, discussion, and practice, teachers construct, then reflect and act upon their knowledge about learners, reading content and process, and contexts in which teaching and learning occur. Student and faculty research is directed to the study of learners from birth to adult maturity. Research sites available to students include the Campus Child Care Center, the Reading Clinic, the Laboratory School (K-12), and public as well as private schools.

Secondary Education Program**Location:** McKee 216 **Telephone:** 970-351-2702**Assistant Professor:** Barbara Whinery, Ph.D.

The Secondary Professional Teacher Education Program (PTEP) is designed to prepare students to teach at the 7-12 grade levels within a special content area. Students selecting this program will work with their major advisor to enter the Secondary PTEP Phase One where they will be introduced to program standards and Phases Two, Three and Four to complete their program.

Division of Professional Psychology**Location:** McKee 248 **Telephone:** 970-351-2731**Director:** Ellis P. Copeland

Professional psychology offers graduate programs in counselor education, professional counseling, counseling psychology and school psychology, which prepare students for careers in schools, community agencies, industry, higher education and private practice. Service courses are offered

for other programs at both graduate and undergraduate levels. In addition, professional psychology offers services to the University and the local community through its clinic, a research and training facility. The master's programs in School Counseling and Agency Counseling, the emphasis area in Marriage and Family Therapy and the doctoral program in Counselor Education are accredited by the Council for Accreditation of Counseling and Related Educational Programs. The doctoral program in school psychology is accredited by the American Psychological Association and the National Association of School Psychologists. The educational specialist degree program in school psychology is also accredited by the National Association of School Psychologists. The doctoral program in Counseling Psychology is accredited by the American Psychological Association.

Counselor Education and Professional Counseling Programs**Location:** McKee 248 **Telephone:** 970-351-2731**Professors:** Wendell A. Osorno, Ph.D.; Judith A. Praul, Ed.D.; Sarah F. Shaw, Ed.D.; William M. Walsh, Ph.D.**Associate Professor:** Tracy D. Baldo, Ph.D.**Assistant Professor:** Basilia Softas-Nall, Ph.D.**Counseling Psychology Program****Location:** McKee 248 **Telephone:** 970-351-2731**Professors:** I. David Welch, Ed.D.; William Walsh, Ph.D.**Associate Professors:** David M. Gonzalez, Ph.D.; M. Sean O'Halloran, Ph.D.**Assistant Professor:** Basilia C. Softas-Nall, Ph.D.**School Psychology Programs****Location:** McKee 248 **Telephone:** 970-351-2731**Professors:** Ellis P. Copeland, Ph.D.; Rik Carl D'Amato, Ph.D.**Associate Professor:** Achilles N. Bardos, Ph.D.**Assistant Professor:** Michelle C. Schicke, Ph.D.**Division of Educational Psychology, Statistics and Technology****Location:** McKee 518 **Telephone:** 970-351-2807**Director:** John B. Cooney

The Division of Educational Psychology, Statistics, and Technology offers master of arts and doctor of philosophy programs in the areas of Educational Psychology, Statistics and Research Methods, and Educational Technology. In addition, the division offers a master of arts degree in Educational Media. These programs prepare students for a wide variety of positions in K-12 school settings, business and industry, and higher education. Service courses are offered by the division faculty to support other university programs at both the undergraduate and graduate levels.

Applied Statistics and Research Methods Program**Location:** McKee 518 **Telephone:** 970-351-2807**Professor:** Dale Shaw, Ph.D.**Associate Professor:** Ann Thomas, Ph.D.**Assistant Professors:** Daniel Mundfrom, Ph.D.; Diane Schnelker, Ph.D.

The program in Applied Statistics and Research Methods is designed to prepare graduates in education who make important contributions to educational practice. Through the program, great emphasis is placed on how research design and statistics can be applied to educational issues and problems.

Educational Psychology Program**Location:** McKee 518 **Telephone:** 970-351-2807**Professors:** Kyle R. Carter, Ph.D.; John B. Cooney, Ph.D.; Randy J. Lennon, Ph.D.; Teresa McDevitt, Ph.D.; Jeanne E. Ormrod, Ph.D.**Associate Professors:** Kathryn F. Cochran, Ph.D.; Steven M. Pulos, Ph.D.

Educational Psychology offers programs and service courses at both the graduate and undergraduate levels. The program faculty provide courses on psychological principles and theories and research methodologies as applied to the educational process. These applications range from everyday concerns in the public school classroom to basic research on learning and human development.

The degree programs are designed to prepare individuals for educational activities such as classroom teaching, evaluation, test construction, educational research, educational consulting to business and public schools and university teaching. Faculty and students have access to mainframe computers with remote terminals, a complete set of statistical packages and a microcomputer laboratory. These facilities are available for both teaching and research purposes.

Educational Technology Program**Location:** McKee 518 **Telephone:** 970-351-2807**Professor:** Edward P. Caffarella, Ph.D.**Associate Professor:** Jeffrey Bauer, Ph.D.**Assistant Professors:** Kay Persichlhte, Ph.D.; Janette Hill, Ph.D.

The Educational Technology faculty administer graduate degree programs in Educational Technology and Educational Media, as well as graduate non-degree programs leading to a School Library Media endorsement by the State of Colorado Department of Education.

At the master's level these programs of study are designed to develop knowledge and skills in instructional systems analysis and design, computer applications, media design and information management. Application is focused upon improving human performance in applied learning settings.

At the doctoral level students are provided with advanced opportunities to develop knowledge and skills in the area of instructional delivery system design, analysis and evaluation. Emphasis is placed upon the generation of empirically derived strategies to promote instructional practice based upon learning and instructional theory.

Division of Special Education**Location:** McKee 318 **Telephone:** 970-351-2691**Director:** Allen Huang

Professors: Clifford Baker, Ed.D.; George Betts, Ed.D.; Antonio Carvajal, Ed.D.; James DeRuiter, Ph.D.; Kay A. Ferrell, Ph.D.; B. Robert Gonzales, Ed.D.; Allen Huang, Ed.D.; J. Melvin Lane, Ed.D.; John Luckner, Ed.D.; D. Kim Reid, Ph.D.; Harvey Rude, Ed.D.

Associate Professors: Diane Bassett, Ph.D.; Teresa Bunsen, Ed.D.; Sarah DeHaas-Warner, Ph.D.; Lewis Jackson, Ed.D.; David Kappan, M.A.; Patricia Lee, Ed.D.; Barbara Rhine, Ed.D.

Assistant Professors: Carol Love, Ph.D.; Madeline Millan, Ed.D.; Stuart Omdahl, Ph.D.; Francie R. Murry, Ph.D.; D. William Muir, M.A.

The Division of Special Education offers one of the most comprehensive training programs for special educators (undergraduate, master's, doctoral) in the nation. UNC is the only institution in a six-state region that offers degree programs in special education in all areas of exceptionality. Special programs associated with special education include the Summer Enrichment Program for the Gifted and Talented, the Bresnahan-Halstead Center on Mental Retardation and Developmental Disabilities, and the Kephart Memorial Child Study Center and an annual symposium in Breckenridge, Colorado featuring renowned speakers.

Faculty in Special Education are nationally recognized, have published in their respective areas, presented papers at prestigious conferences and have many of their publications translated into several foreign languages. Numerous program and research grants provide support for professional development and student scholarships at the graduate level.

Professional Teacher Education Programs

The University of Northern Colorado offers four Professional Teacher Preparation Programs (PTEP) that are designed to prepare teacher education candidates for Colorado Licensure. The 1996-97 Professional Teacher Education Programs include: Elementary Education (K-6), Middle Grades Education in specific and support teaching areas (5-9), Secondary Education in specific teaching areas (7-12), and K-12 Education in the areas of Physical Education, Music Education, Visual Arts Education, and Special Education.

A student interested in obtaining a Colorado Provisional License to teach must apply, be admitted to, and complete one of the Professional Teacher Education Programs. Students who have completed a baccalaureate degree, but do not hold a Colorado teacher license, are encouraged to contact the School for the Study of Teaching and Teacher Education in McKee 216 to receive information on post-baccalaureate programs for teacher licensure.

Full licensure program descriptions can be found in the section on licensure and endorsement programs at the end of the College of Education section of this bulletin.

Standards of Professional Practice for Continuation

Students admitted to professional teacher education programs are expected to maintain accepted standards of professional behavior in all aspects of their work in their program. Appropriate program faculty will periodically review the suitability of candidates for continuation in their professional teacher education program. Students who do not attain or uphold such standards are subject to academic sanctions, including denial, suspension or dismissal from the professional teacher education program.

Every undergraduate student must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it

before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and maybe retaken any number of times. There is a fee to retake the examination. Additional information can be obtained from the English Department, Michener L50, phone 970-351-1576.

Program Completion and Licensure

Candidates for initial Colorado Licensure are required by the Colorado Department of Education to demonstrate competence in basic skills, general education knowledge (liberal arts), professional education knowledge, and content area knowledge (academic major) by successfully passing a state mandated test in each of the four areas. Students who wish to take the tests must register for the Program of Licensing for Colorado Educators (PLACE) examination directly with National Evaluation Systems. Test bulletins, testing dates and more information are available from the School for the Study of Teaching and Teacher Education in McKee 216.

Upon satisfactory completion of a teacher education program and any additional requirements imposed by state law, a student is eligible for institutional recommendation to the Colorado Department of Education for licensure in the State of Colorado. Recommendations for licensure are made only when students have successfully completed an approved teacher education program. A recommendation for licensure cannot be made when a student has completed only a teaching minor.

Upon completion of an approved program a student may be recommended for licensure in states other than Colorado. Completion of the UNC program does not assure licensure in other states, as there may be specific requirements not found in the Colorado requirements. Students expecting to seek licensure in other states should check with the School for the Study of Teaching and Teacher Education in McKee 216 or correspond with the respective State Department of Education early in their program to learn of any additional requirements.

Licensure/Endorsement Areas

The following programs have been approved by the Colorado State Board of Education for licensure/endorsement:

- Administrators' License, K-12
- Audiologist, K-12
- Bilingual/Bicultural Endorsement K-6 (Requires completion of elementary teacher licensure program)
- Bilingual/Bicultural Endorsement 5-9 (Requires completion of middle grades teacher licensure program)
- Communication (Speech), 7-12
- Elementary, K-6
- English, 7-12
- English as a Second Language Endorsement K-6 (Requires completion of elementary teacher licensure program)
- English as a Second Language Endorsement 5-9 (Requires completion of middle grades teacher licensure program)
- Foreign Languages, 7-12 — French, German, Spanish
- Mathematics, 7-12
- Middle School Teacher, 5-9
- Music, K-12
- Physical Education, K-12
- Principals' License, K-12
- Reading Teacher, K-6, 7-12
- Reading Specialist, K-12
- School Counselor, K-6, 7-12
- School Library Media, K-12
- School Nurse, K-12
- School Psychologist, K-12
- Science, 7-12 — Biological Science, Chemistry, Earth Science, Physical Science, Physics
- Social Studies, 7-12 — Geography, History, Social Science
- Special Education Director K-12
- Special Education Teacher — Early Childhood Special Education, ages 0-5; Moderate Needs, ages 5-21; Orientation and Mobility, K-12; Profound Needs, ages 0-21; Severe Needs-Affective, ages 5-21; Severe Needs-Cognitive, ages 5-12, 12-21; Severe Needs-Communication, ages 5-21; Severe Needs-Hearing, ages 0-21; Severe Needs-Vision, ages 0-21
- Speech/Language Pathology, K-12
- Theatre Arts (Drama), 7-12
- Visual Arts (Art), K-12

Additional information regarding licensure/endorsement areas is available through the School for the Study of Teaching and Teacher Education in McKee 216.

Master of Arts in Agency Counseling

Program Requirements

Complete the required credits specified here52

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

Philosophy

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practica. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Program Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in community agencies. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The Agency Counseling program at the master's level prepares a professional counselor to work in various agency settings such as mental health centers, probation and parole departments, substance abuse centers and residential treatment centers. Specific program objectives include skill development in the following:

- Counseling children, adolescents and adults both individually and in groups to maximize personal, social and environmental experiences.
- Consulting with and assisting various community agencies and referral sources in the development of treatment interventions.
- Providing selected diagnostic and evaluative services for individuals and communities.
- Analyzing, integrating and applying a conceptual framework for working with developmental, learning and personality difficulties of individuals and groups.
- Initiating research relative to community and/or organizational mental health services.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must apply for admission to and be accepted by the program area faculty. Admission to the program requires a GPA of 3.0 on the last

completed degree. A Minnesota Multiphasic Personality Inventory - 2 (MMPI - 2) profile is required. Attendance at a pre-admission workshop is required for this admission process to be completed. When attendance at the pre-admission workshop is an extreme hardship for the applicant, special arrangements are made. These may include a conference telephone interview with faculty, contact with references and/or campus interviews at alternate times. Acceptance is based on consideration of the following criteria:

- Two years of relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.
- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by personality assessment, a structured interview, interpersonal communication style and personal references.

Prerequisites

Two years of teaching or work experience involving human interactions after receiving the baccalaureate degree and before admission.

Required Credits — 52 semester hours

Core Requirements

EPSY 530 Life Span Development	3
SRM 600 Introduction to Graduate Research	3
PPSY 607 Theories of Counseling	3
PPSY 610 Theories of Personality	2
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 670 Psychological Testing and Measurement	2

Additional Requirements

PPSY 558 Abnormal Psychology	3
PPSY 565 Psychology of Prejudice	2
PPSY 605 Group Laboratory Experience	1
PPSY 612 Practicum in Individual Counseling	5
PPSY 616 Career Theory, Counseling and Assessment	3
PPSY 624 Substance Abuse	3
PPSY 655 Community Psychology and Social Systems	3
PPSY 662 Group Dynamics and Facilitation	2
PPSY 665 Family Systems	3
PPSY 673 Individual Tests of Intelligence and Personality	3
PPSY 692 Externship	8

Note

Comprehensive examination required.

Master of Arts in Agency Counseling Emphasis in Marriage and Family Therapy

Program Requirements

Complete the required credits specified here52
Complete emphasis area credits specified here16

This program emphasis is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

This emphasis in marriage and family therapy may be an elected addition to the Master of Arts In Agency Counseling.

Philosophy

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practica. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Emphasis Area Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in educational institutions and community agencies. The requirements of the emphasis are conceptualized within this framework and are directed toward the development of competent professionals in the practice of marital and family therapy.

The emphasis area deals primarily with relationships, interpersonal interaction and systems theory. Specific program objectives include skill development in the following:

- Therapy for families and couples to facilitate strong family relations and interpersonal commitments.
- Parent education and family communication to enhance the ability to work with parents and families.
- Consultation with and assistance to various community agencies in the development of prevention programs.
- Initiation of research relative to community programs and family and couples interventions.

Admission

Must be admitted and enrolled in the Master of Arts in Agency Counseling (see Admission Requirements for this degree).

Prerequisites

Must be admitted and enrolled in the Master of Arts in Agency Counseling.

In addition to meeting the course requirements for the Master of Arts in Agency Counseling the following courses are required.

Required Emphasis Area Courses — 16 semester hours

PPSY 664 Therapeutic Parenting	2
PPSY 666 Couple and Marriage Therapy	2
PPSY 668 Sexuality Counseling	3
PPSY 669 Advanced Methods: Marriage and Family Therapy	3
PPSY 694 Practicum in Family Therapy	4
PPSY 695 Seminar: Contemporary Issues in Family Therapy	2

Suggested Elective

PPSY 585 Family Counseling and Education in School Settings	2
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Master of Arts in Elementary School Counseling

Program Requirements

Complete the required credits specified here52

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

Philosophy

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of professional preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practica. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Program Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in educational institutions. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The Elementary School Counseling program is designed at the master's level to develop a professional who counsels with children and adults in various settings, especially in elementary and middle schools. Specific program objectives include skill development enabling students to:

- Provide counseling and guidance services for adults when appropriate.
- Provide inservice training in guidance-related areas.
- Initiate evaluative and other research related to children, their families and environment.
- Coordinate and manage guidance services appropriate to elementary and middle school settings.
- Evaluate cognitive and affective characteristics of learning.
- Explore career development as it relates to young children.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must apply for admission to and be accepted by the program area faculty. Admission to the program requires a GPA of 3.0 on the last completed degree. A Minnesota Multiphasic Personality Inventory - 2 (MMPI - 2) profile is required. Attendance at a pre-admission workshop is required for this admission process to be completed. When attendance at the pre-admission workshop is an extreme hardship for the applicant, special arrangements are made. These may include a conference telephone

interview with faculty, contact with references and/or campus interviews at alternate times. Acceptance is based on consideration of the following criteria:

- Two years of teaching or relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.
- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by personality assessment, a structured interview, interpersonal communication style and personal references.

Two years of teaching or relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.

Students entering the master's program should have completed a course in Life Span Development or Human Growth and Development. Those who have not completed coursework in this area will need to complete it as deficiency coursework not to be included in the 52 hours required for the degree.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Required Credits — 52 semester hours

Core Requirements

SRM 600 Introduction to Graduate Research	3
EPSY 630 Child and Adolescent Psychology	3
PPSY 607 Theories of Counseling	3
PPSY 610 Theories of Personality	2
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 670 Psychological Testing and Measurement	2

Requirements for Elementary School Counseling

PPSY 565 Psychology of Prejudice	2
PPSY 602 Foundations of School Guidance	3
PPSY 604 Career Development and Occupational Systems	2
PPSY 605 Group Laboratory Experience	1
PPSY 606 Theories and Practices in Group Guidance	2
PPSY 608 Organization, Administration and Consultation in Guidance Services	3
PPSY 611 Externship in Guidance Services	5
PPSY 612 Practicum in Individual Counseling	5
PPSY 613 Externship in Counseling with Children	5
PPSY 624 Substance Abuse	3
PPSY 671 Testing: Analysis and Interpretation	2
Elective	3

Note

Comprehensive examination required.

Master of Arts in Secondary and Post-Secondary School Counseling

Program Requirements

Complete the required credits specified here52

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

Philosophy

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of professional preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practica. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Program Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in educational institutions. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

The Secondary and Post-Secondary School Counseling program is designed at the master's level to prepare professionals to counsel with adolescents and adults in school settings. Specific program objectives include skill development enabling students to:

- Work with adolescents and adults both individually and in groups to maximize personal and academic experiences related to school and social life.
- Provide students with educational counseling for the formation of programs to meet individual needs.
- Provide students with career development information based on individual need, strengths and assets.
- Serve as a consultant to teachers, parents and others and provide for the affective needs of students.
- Coordinate and manage guidance services appropriate to the particular school setting.
- Initiate evaluative and other research relative to school guidance services.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must apply for admission to and be accepted by the program area faculty. Admission to the program requires a GPA of 3.0 on the last completed degree. A Minnesota Multiphasic Personality Inventory - 2 (MMPI - 2) is required. Attendance at a pre-admission workshop is required for this admission process to be completed. When attendance at the pre-admission

workshop is an extreme hardship for the applicant, special arrangements are made. These may include a conference telephone interview with faculty, contact with references and/or campus interviews at alternate times. Acceptance is based on consideration of the following criteria:

- Two years of teaching or relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.
- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by personality assessment, a structured interview, interpersonal communication style and personal references.

Two years of teaching or relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.

Students entering the master's program should have completed a course in Life Span Development or Human Growth and Development. Those who have not completed coursework in this area will need to complete it as deficiency coursework not to be included in the 52 hours required for the degree.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Required Credits — 52 semester hours

Core Requirements

SRM 600 Introduction to Graduate Research	3
EPSY 630 Child and Adolescent Psychology	3
PPSY 607 Theories of Counseling	3
PPSY 610 Theories of Personality	2
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 670 Psychological Testing and Measurement	2

Additional Requirements

PPSY 565 Psychology of Prejudice	2
PPSY 602 Foundations of School Guidance	3
PPSY 604 Career Development and Occupational Systems	2
PPSY 605 Group Laboratory Experience	1
PPSY 606 Theories and Practices in Group Guidance	2
PPSY 608 Organization, Administration and Consultation in Guidance Services	3
PPSY 611 Externship in Guidance Services	5
PPSY 612 Practicum in Individual Counseling	5
PPSY 614 Externship in Counseling with Youth and/or Adults	5
PPSY 624 Substance Abuse	3
PPSY 671 Testing: Analysis and Interpretation	2
Elective	3

Note

Comprehensive examination required.

Master of Arts in Secondary and Post-Secondary School Counseling Emphasis in College Student Personnel Administration

Program Requirements

Complete the required credits specified here52

This emphasis area is specifically designed for those who wish to counsel in a college setting.

Philosophy

The Counseling faculty views potential candidates as unique, with strengths and assets to be identified, encouraged and developed during their graduate education. The knowledge and human relations skills necessary to help individuals recognize their own and other persons' unique promise and discover opportunities for its expression form the core of preparation for students in professional counseling. Such knowledge and skills are learned in part from research and study in the behavioral and social sciences, various skill development activities and supervised practice. Opportunities for a broad understanding of human behavior and human relationships are included in the education of the student in Counseling.

Program Objectives

The Counseling faculty is committed to the development of broadly based competent professional counselors skilled in helping people with personal, career and leisure concerns in educational institutions. The requirements of the program are conceptualized within the framework and standards set forth by the counseling profession, Colorado state law, Graduate School and job requirements.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must apply for admission to and be accepted by the program area faculty. Admission to the program requires a GPA of 3.0 on the last completed degree. A Minnesota Multiphasic Personality Inventory - 2 (MMPI - 2) profile is required. Attendance at a pre-admission workshop is required for this admission process to be completed. When attendance at the pre-admission workshop is an extreme hardship for the applicant, special arrangements are made. These may include a conference telephone interview with faculty, contact with references and/or campus interviews at alternate times. Acceptance is based on consideration of the following criteria:

- Two years of teaching or relevant work experience involving human interactions before receiving the baccalaureate degree and before admission.

- Clarity of career goals.
- Intellectual qualities.
- Professional judgment of appropriate personality characteristics as evidenced by personality assessment, a structured interview, interpersonal communication style and personal references.

Prerequisites

Two years of teaching or relevant work experience involving human interactions after receiving the baccalaureate degree and before admission.

Students entering the master's program should have completed a course in Life Span Development or Human Growth and Development. Those who have not completed coursework in this area will need to complete it as deficiency coursework not to be included in the 52 hours required for the degree.

Required Credits — 52 semester hours

Core Requirements

SRM 600 Introduction to Graduate Research	3
PPSY 607 Theories of Counseling	3
PPSY 610 Theories of Personality	2
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 670 Psychological Testing and Measurement	2

Additional Requirements

CSPA 583 Crisis Intervention	1
CSPA 650 College Environment and Student Development: Theory and Research	4
CSPA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education	3
CSPA 658 Management and Administration in Student Affairs	3
CSPA 675 Field Experience in Student Affairs	2
PPSY 604 Career Development and Occupational Information Systems	2
PPSY 605 Group Laboratory Experience	1
PPSY 606 Theories of Group Guidance	2
PPSY 612 Practicum in Individual Counseling	5
PPSY 623 Counseling Diverse Populations	2
PPSY 624 Substance Abuse	3
PPSY 655 Community Psychology and Social Systems	3
PPSY 692 Externship	8

Note

Comprehensive examination required.

Doctor of Education in Counselor Education

Program Requirements

Complete the required credits specified here (minimum)93

This program is accredited by the Council for Accreditation of Counseling and Related Educational Programs.

This program is designed to develop counselor educators and supervisors for elementary, middle/junior high, secondary and higher education settings. Emphasis is placed on supervision, instruction, group, consultation, research and evaluation skills.

Admission

Application must be completed and on file in the Professional Psychology office by January 1, with decisions announced by the first week of April.

- Total score of 1500 for the Verbal, Quantitative and Analytical subtests of the GRE is recommended.

- A master's degree in counseling or a related area.
- Three letters of recommendation.
- Grade Point Average of 3.25 in the last 60 hours of academic work is desired.
- Written statement regarding the relationship of the doctoral program to the future career goals of the applicant.
- Two years of counseling, teaching or other acceptable work experience.

After the student's admission to the Graduate School, a further review process is conducted by the Counseling faculty for admission to a specific program. Attendance at a pre-admission workshop is required for the admission process to be completed.

Admission decisions are based on the professional judgment of the Counseling faculty, considering the above data, including personal characteristics and interpersonal communications style as assessed in the pre-admission workshop. Applications are evaluated on a competitive basis, for a limited number of positions.

Prerequisites — Required of All Ed.D. Students

Students entering the doctoral program should have completed courses in the following areas at the graduate level:

- Introductory Research
- Tests and Measurement
- Descriptive Statistics
- Learning Theory
- Developmental/Child/Adolescent/Adult Psychology
- Personality Theories
- Organization and Administration of Guidance
- Career Development and Placement
- Counseling Theories
- Group Counseling/Guidance
- Testing: Analysis and Interpretation

Students who have not completed coursework in these areas will need to complete these courses as deficiency coursework not to be included in the 93 hours required for the degree. All deficiency coursework and PPSY 702 must be completed before students will be eligible for the first letter of encouragement. Students will be required to satisfactorily complete doctoral comprehensive examinations and dissertations in addition to coursework.

Required Credits — 93 semester hours

<i>Counseling Core</i>	
PPSY 702 Practicum in Counseling	4
PPSY 707 Seminar in Personality and Counseling Theories	3
<i>Supervision Core</i>	
PPSY 712 Advanced Practicum in Individual Counseling	4
PPSY 714 Practicum in Supervision of Counseling (2)	6
PPSY 715 Seminar in Counselor Supervision and Theory	2
PPSY 773 Practicum in Supervision of Group Facilitation	3
<i>Group Core</i>	
PPSY 693 Practicum in Group Facilitation	4
<i>Instruction and Consultation Core</i>	
PPSY 655 Community Psychology and Social Systems	3
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 660 Psychological Consultation: Theory and Practice	2
PPSY 668 Sexuality Counseling	3
PPSY 681 Systems Intervention Practicum	3
PPSY 755 Supervised Practicum in College Teaching (taken twice)	6
PPSY 792 Internship in Counselor Education	12
<i>Research and Evaluation</i>	
SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 700 Advanced Research Methods	3
PPSY 716 Research Seminar in Counselor Education	3
PPSY 733 Research Apprenticeship	2
(one hour each semester for two consecutive semesters)	
PPSY 781 Evaluation of Psychological Services	3
<i>Special Populations (choose one of the following courses)</i>	
PPSY 568 Psychology of Women	2
PPSY 565 Psychology of Prejudice	2
PPSY 569 Violence Against Women and Children	2
PPSY 623 Counseling Diverse Populations	2
PPSY 654 Child Abuse and Neglect	2
<i>Dissertation</i>	
PPSY 797 Doctoral Proposal Research	4
PPSY 799 Doctoral Dissertation	12

Doctor of Psychology in Counseling Psychology

Program Requirements

Complete the required credits specified here (minimum)109

The Psy. D. program is fully accredited by The American Psychological Association. This program is designed to develop individuals who will be effective counseling psychologists in community, agency or system settings. Such a program would focus primarily on attaining the objectives of training effective persons for therapy and assessment of individuals and groups, supervising others in helping relations and researching and evaluating programs relative to counseling. Secondly, the objectives are teaching and training professionals and paraprofessionals in psychology and documenting the effectiveness of these programs and consulting in prevention and treatment models.

Admission

Applications must be completed and on file in the Professional Psychology office by January 1, with decisions announced by the first week of April.

- Total score of 1500 for the Verbal, Quantitative and Analytical subtests of the GRE is recommended.
- A master's degree in counseling or a related area.
- Three letters of recommendation from individuals who are familiar with the student's academic and clinical skills.
- Grade Point Average of 3.25 in the last 60 hours of academic work is desired.
- Written statement regarding the relationship of the doctoral program to the future career goals of the applicant.
- Two years of counseling, teaching or other acceptable work experience.

After the student's admission to the Graduate School, a further review process is conducted by the Counseling faculty for admission to a specific program. Attendance at a pre-admission workshop is required for the admission process to be completed.

Admission decisions are based on the professional judgment of the Counseling faculty, considering the above data, including personal characteristics and interpersonal communications style as assessed in the pre-admission workshop. Applications are evaluated on a competitive basis for a limited number of positions.

Prerequisites

Students entering this doctoral program should have completed courses in the following areas at the graduate level:

- Introductory Research
- Tests and Measurement
- Descriptive Statistics
- Developmental/Child/Adolescent/Adult Psychology
- Personality Theories
- Abnormal Psychology
- Career Development and Placement
- Group Counseling/Guidance
- Theories of Learning

Students who have not completed coursework in these areas are required to complete these courses as deficiency credits. The deficiencies are not included in the 109 hours required for the degree. All deficiency coursework and PPSY 702 must be completed before students will be eligible for the first letter of encouragement. Students will be required to satisfactorily complete a doctoral comprehensive examination and dissertation in addition to coursework.

Required Credits — 109 semester hours

<i>Required Core (All Required) — 25 semester hours</i>	
PPSY 590 Seminar in History and Systems	3
PPSY 655 Community Psychology and Social Systems	3
PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
PPSY 665 Family Systems	3
PPSY 668 Sexuality Counseling	3
PPSY 707 Seminar in Personality and Counseling Theories	3
PPSY 758 Advanced Psychopathology	3
PPSY 777 Applied Neuropsychology	4
<i>Elective Core (Supervision Courses not included) — 3 semester hours</i>	
<i>Practica (All Required) — 22 semester hours</i>	
PPSY 693 Practicum in Group Facilitation	4
PPSY 694 Practicum in Family Therapy	4
PPSY 702 Practicum in Counseling	4
PPSY 712 Advanced Practicum in Individual Counseling	4
PPSY 714 Practicum in Supervision of Counseling	3
PPSY 793 Intake Practicum	1
PPSY 794 Clinic Practicum	2
<i>Supervision — 2 semester hours</i>	
PPSY 715 Seminar in Counselor Supervision and Theory	2
<i>Statistics and Research (All required) — 11 semester hours</i>	
SRM 602 Elements of Statistics	3
SRM 603 Analysis of Variance	3
SRM 700 Advanced Research Methods	3
PPSY 733 Research Apprenticeship (1 hour each)	2
<i>Elective Supervision Practica (one required)</i>	
PPSY 681 Systems Intervention Practicum	3
PPSY 713 Practicum in Supervision of Play Therapy	3
PPSY 773 Practicum in Supervision of Group Facilitation	3
PPSY 774 Practicum in Supervision of Family Therapy	3
<i>Special Populations (choose one of the following courses)</i>	
PPSY 565 Psychology of Prejudice	2
PPSY 623 Counseling Diverse Populations	2
<i>Assessment (All required) — 10 semester hours</i>	
PPSY 675 Intelligence Assessment	3
PPSY 678 Practicum in Personality and Clinical Assessment	5
PPSY 782 Introduction to Rorschach Administration and Scoring	2
<i>Internship</i>	
PPSY 791 Internship in Counseling Psychology	15
<i>Dissertation</i>	
PPSY 797 Doctoral Proposal Research	4
PPSY 799 Doctoral Dissertation	12

Educational Specialist in School Psychology

Program Requirements

Complete the required credits specified here72-85

The Ed.S. program is fully accredited by the National Association of School Psychologists.

The specialist program in School Psychology is designed for those persons who wish to become practitioners meeting state and national licensure requirements for school psychologists. Training is primarily oriented toward the acquisition of those skills necessary for effective functioning as a school psychologist working in a public school.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must submit the following data to the Professional Psychology office by January 15. Decisions will be announced by April 15. The master's degree is not required for admission.

- Academic transcripts of all college or university training. A grade point average of at least 3.3 in the last 100 hours of academic work is preferred (sent to the Graduate School by January 15).

- Three letters of recommendation from immediate supervisors or professors. These letters should be addressed to the Graduate School/School Psychology Program.

- A written statement regarding the relationship of the specialist program to the personal and professional goals of the applicant. This statement should be forwarded to the School Psychology Admissions coordinator.

Applications are evaluated competitively for a limited number of positions. The application must demonstrate clear potential for success in a specialist program in School Psychology.

Prerequisites

The following program is based on the student's entering with a bachelor's degree. A student with a master's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. The following graduate courses or areas of study are prerequisite to the program: Tests and Measurements, Abnormal Psychology, Descriptive and Inferential Statistics and Theories of Personality. Students who have not had these courses will be required to complete them upon entry into the program. In consultation with the advisor, a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare the student to be a professional school psychologist.

Required Credits — 72-85 semester hours

**Recommended to meet State of Colorado School Psychologist licensure requirements.*

Psychological Foundations

PPSY 763 Seminar in School Psychology	3
*EPSY 630 Childhood and Adolescent Psychology	3
or	
*PSY 550 Cognitive Development	3
*PPSY 607 Theories of Counseling	3
*EPSY 540 Theories and Principles of Learning	3
or	
*PPSY 638 Behavioral Applications to Professional Psychology	3
*PPSY 655 Community Psychology and Social Systems	3
*PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
*PPSY 660 Psychological Consultation: Theory and Practice	2
*PPSY 781 Evaluation of Psychological Services	3

Assessment for Intervention

*PPSY 612 Practicum in Individual Counseling	5
*PPSY 674 Intellectual and Cognitive Assessment	5
*PPSY 678 Practicum in Personality and Clinical Assessment	5
*PPSY 779 Practicum in School Psychology	3

Choose two of the following:

*PPSY 617 Play Therapy: Theory and Practicum	3
*PPSY 676 Infant and Toddler Neuropsychology	3
*PPSY 681 Systems Intervention Practicum	3
*PPSY 694 Practicum in Family Therapy	4

Choose one of the following three options:

*PPSY 665 Family Systems	3
or	
*PPSY 585 Family Counseling and Education in School Settings	2
or	
*PPSY 605 Group Laboratory Experience	1
and	
*PPSY 606 Theories and Practice in Group Guidance	2

Professional Education (minimum of 9 hours required)

*EDRD 617 Evaluation and Correction of Individual Reading Problems	4
PPSY 569 Violence Against Women and Children	2
or	
PPSY 654 Child Abuse and Neglect	2
*PPSY 580 Computer Applications to Professional Psychology	2
*PPSY 672 Neuropsychology of LD and TBI	3
PPSY 603 Counseling Children and Adolescents	3

To meet the professional educational requirements, other courses, with advisor approval, from ELPS, EDSE or EDF may be substituted.

Multicultural Understanding

Choose one of the following:

*PPSY 565 Psychology of Prejudice	2
*PPSY 623 Counseling Diverse Populations	2

Supervised Field Work

PPSY 789 Internship in School Psychology (two semesters)	12
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Note

A written comprehensive examination is a program requirement, which is satisfied through the successful completion of the National Certified School Psychology Examination (NCSP).

School Psychologist Licensure

Institutional recommendation for endorsement in School Psychology is based on the completion of the Ed.S. or the Ph.D. program in School Psychology. No prior teaching experience is necessary.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Students desiring licensure in states other than Colorado should note that requirements for licensure are set by each state's Department of Education and should become familiar with the requirements for any other state from which they seek licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the School for the Study of Teaching and Teacher Education in McKee 216. Applications are processed as soon as official transcripts, ordered by the applicant, are received from the Registrar showing completion of requirements. Departmental recommendations are required before institutional endorsement is granted.

Doctor of Philosophy in School Psychology

Program Requirements

Complete the required credits specified here 116-123

The Ph.D. program is fully accredited by the American Psychological Association and the National Association of School Psychologists.

The principal goal of the doctoral program is the training of a professional psychologist who, in addition to possessing general practitioner skills, has developed proficiency in the areas of psychological intervention, psychological assessment, consultation, systems change, research and evaluation. Doctoral graduates, in addition to being eligible for state and national licensure as school psychologists, may also be qualified to assume positions as therapists, university professors, educational evaluators and private consultants.

Doctoral students in School Psychology are required to engage in research with a school psychology faculty member for five hours per week (equivalent, one semester hour) for a minimum of two semesters.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must submit the following data to the Professional Psychology office by January 15. Decisions announced by April 15. The master's degree is not required for admission.

- Academic transcripts of all college or university training. A grade point average of 3.5 in the last 90 hours of academic work is preferred.
- Scores on the Graduate Record Examination. (Transcripts and GRE scores must be sent to the Graduate School before January 15.)
- Three letters of recommendation from immediate supervisors or professors. These letters should be addressed to the Graduate School/School Psychology Program.
- A written statement regarding the relationship of the doctoral program to the personal and professional goals of the applicant. This statement should be forwarded to the school psychology admissions coordinator.

Applications are evaluated competitively for a limited number of positions. The applicant must demonstrate clear potential for success in a doctoral program in School Psychology.

Prerequisites

The following program is based on the student entering with a bachelor's degree. A student with a master's or specialist's degree in psychology or professional psychology should meet with his or her advisor to develop a specific plan of study. The following graduate courses or areas of study are prerequisites to the program: Tests and Measurements, Abnormal Psychology and Theories of Personality. Students who have not had these courses will be required to complete them upon entry into the program. In consultation with the advisor a student should select the number of hours and specific courses to meet licensure requirements, complete the program and prepare to be a professional school psychologist.

Required Credits — 116-123 semester hours

*Recommended to meet State of Colorado School Psychologist licensure requirements.

Psychological Foundations

*PPSY 763 Seminar in School Psychology	3
*EPSY 630 Childhood and Adolescent Psychology	3
or	
*PSY 550 Cognitive Development	3
or	
*EPSY 684 Advanced Seminar in Human Development	3
*PPSY 607 Theories of Counseling	3
or	
*PPSY 707 Seminar in Personality and Counseling Theories	3
PPSY 758 Advanced Psychopathology	3
*PPSY 655 Community Psychology and Social Systems	3
*PPSY 657 Legal and Ethical Aspects of Counseling and Psychology	3
*PPSY 660 Psychological Consultation: Theory and Practice	2
*EPSY 540 Theories and Principles of Learning	3
or	
*PPSY 638 Behavioral Applications to Professional Psychology	3
PSY 590 Seminar in History and Systems	3
PPSY 777 Applied Neuropsychology	4

Assessment for Intervention

*PPSY 674 Intellectual and Cognitive Assessment	5
*PPSY 678 Practicum in Personality and Clinical Assessment	5
*PPSY 775 Supervision of Psychological Testing	3
*PPSY 779 Practicum in School Psychology	3
*PPSY 612 Practicum in Individual Counseling	5
or	
*PPSY 702 Practicum in Counseling	4

Choose two of the following:

*PPSY 559 Introduction to Clinical Hypnosis	2
*PPSY 617 Play Therapy: Theory and Practicum	3
*PPSY 676 Infant and Toddler Neuropsychology	3

*PPSY 681 Systems Intervention Practicum	3
*PPSY 694 Practicum in Family Therapy	4
*PSY 626 Introduction to Neuropsychological Assessment	4
*PPSY 605 Group Laboratory Experience	1
and	
*PPSY 606 Theories and Practice in Group Guidance	2
*PPSY 755 Supervised Practicum in College Teaching	(1-6)
and	
*EPSY 654 Seminar in College Teaching	(1-3)
*PPSY 778 Clinical Neuropsychology Practicum	2

Multicultural Understanding

Choose any one of the following:

*PPSY 565 Psychology of Prejudice	2
*PPSY 623 Counseling Diverse Populations	2

Research

*SRM 700 Advanced Research Methods	3
PPSY 797 Doctoral Proposal Research	4
PPSY 799 Doctoral Dissertation	12

Research Tools

1. Applied Statistics (choose one of the two options)

Option one

*SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 610 Statistical Methods III	3

Option two

*SRM 501 Applied Statistics I	4
SRM 502 Applied Statistics II	4
SRM 605 Multivariate Analysis	3
or	
SRM 606 Multiple Linear Regression Models	3
or	
SRM 610 Statistical Methods III	3

2. Applied Research

PPSY 580 Computer Applications to Psychology	2
PPSY 663 Research Apprenticeship: School Psychology	2
PPSY 781 Evaluation of Psychological Services	3
EPSY 675 Measurement II: Advanced Techniques	3
or	
SRM 680 Qualitative Research Methods	3

Supervised Field Work

*PPSY 789 Internship in School Psychology (3 semesters)	12
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Professional Education — (minimum of 6 hours required)

PPSY 569 Violence Against Women and Children	2
or	
PPSY 654 Child Abuse and Neglect	2
*PPSY 672 Neuropsychology of LD and TBI	3
*EDRD 617 Evaluation and Correction of Individual Reading Problems	4
PPSY 568 Psychology of Women	2
PPSY 603 Counseling Children and Adolescents	3

Electives in Professional Education 1

With Advisor approval and/or other courses from ELPS, EDF, or EDSE, may be substituted to meet State of Colorado Licensure Standards.

Elective Credits

If additional hours are needed, students may choose courses in consultation with their advisors.

Note

Written and oral examinations and a dissertation are requirements of this program.

School Psychologist Licensure.

Institutional recommendation for endorsement in School Psychology is based on the completion of the Ed.S. or the Ph.D. programs in School Psychology. No prior teaching experience is necessary.

Students wishing to obtain Colorado licensure in this area are required to pass a proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Students desiring licensure in states other than Colorado should note that requirements for licensure are set by each state's Department of Education and should become familiar with the requirements for any other state from which they seek licensure.

Near the end of the semester that the licensure program is to be completed, the candidate should complete application forms in the School for the Study of Teaching and Teacher Education in McKee 216. Applications are processed as soon as official transcripts, ordered by the applicant, are received from the Registrar showing completion of requirements. Departmental recommendations are required before institutional endorsement is granted.

Doctor of Philosophy in College Student Personnel Administration

Program Requirements

Complete the required credits specified here67
Complete program elective credits specified here8

Student affairs professionals provide services to students in higher education settings of all kinds. With the goal of positively influencing each student's full development, professionals function as consultants, educators and administrators. The UNC doctoral program in College Student Personnel Administration trains professionals to satisfy this goal by featuring a blending of humanistic values with effective management principles.

The program of studies is designed to prepare professionals for college and university leadership positions in all areas of student affairs. The educational model on which the program is based maintains that student affairs professionals must possess a broad knowledge base, a variety of specific skills and be persons oriented toward personal growth. A strong background in the liberal arts, basic helping skills and an interest in research, evaluation and statistics are desirable assets for those wishing to enter the program. The curriculum is based on a process-outcome model that prepares leaders for student personnel administration positions at the highest levels.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must have a master's degree in student affairs, counseling, or a related field from an accredited institution, at least two years of successful experience in student affairs work and an acceptable personal interview with the program admissions committee.

Prerequisites

A basic helping skills course such as PPSY 612 or equivalent is required for admission. If such skills are not already in the applicant's repertoire, this deficiency must be made up through coursework at either UNC or a nearby institution. SRM 600 or the equivalent in an introductory statistics and research coursework is required for admission. If this was not a part of the master's degree curriculum, the deficiency may be made up by taking this course at UNC. When such deficiencies are made up, the courses taken do NOT count as degree credit toward the Ph.D.

Required Credits — 67 semester hours

Core Requirements

ELPS 751 Doctoral Core I	6
ELPS 752 Doctoral Core II	3
CSPA 650 College Student Development Theory and Research	3
CSPA 750 College Environments and Student Characteristics	3
CSPA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education	3
CSPA 655 Multiculturalism in Higher Education	3
CSPA 682 Legal Issues in Student Affairs	3
CSPA 758 Seminar in College Student Personnel Administration	1

Choose one of the following:

CSPA 652 Enrollment Management Services	3
CSPA 653 Services for Environmental and Student Development	3

Theory to Practice,

CSPA 622 Directed Studies (variable credit and title)	1
or	
PPSY 601 Practicum (variable credit)	1

Note that at least a one credit project is required. This constitutes an application of theory, drawn from the core, to the practice of student affairs.

Field Experience or Internship

CSPA 661 Practicum in College Teaching	2
CSPA 670 Internship in Student Affairs	6
CSPA 675 Field Experience in Student Affairs	2
(variable title)	

Note that as part of the doctoral program in College Student Personnel Administration at UNC, every graduate student is required to complete a minimum of four semester hours of credit in field based experiences using

CSPA 661, 670, or 675. Sites are to be selected with the advice and consent of the advisor in conjunction with the office/supervisor on the site. A seminar that meets every other week during the semester is a required part of enrollment in a field experience, teaching practicum, or internship. To enroll in a field based experience, obtain a special registration form and the signatures of the faculty supervisor and the program coordinator. To meet this requirement, the student must obtain experience in at least two different sites.

Research and Statistics

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
Plus one additional applied statistics course	3
CSPA 753 Evaluation in Student Affairs	2
SRM 700 Advanced Research Methods	3
CSPA 755 Advanced Research Seminar	1
CSPA 797 Doctoral Proposal Research	4
CSPA 799 Doctoral Dissertation	12

Note that SRM 600 or equivalent is prerequisite to admission. Students lacking an introductory course in Research methods and/or statistics should plan to take SRM 600 to remedy the deficiency. Credits for this work do not count toward the Ph.D. Degree.

Elective Credits — 8 semester hours

Notes

Research Tool Policy — Competency in two research tools is required of Ph.D. students at UNC. In CSPA, the first tool, applied statistics, is contained in the curriculum as specified above.

It requires passing the statistics and research methodology sequence with an overall GPA of 3.0 or better. For the second research tool, the student may choose among the options explained below. Hours taken to satisfy the second research tool may not be included in the total of 75 semester hours of doctoral credit required by the program curriculum.

Foreign Language — Pass the ETS (or other faculty approved) examination in any major modern foreign language with a score at the 50th percentile or better.

Computer Proficiency — Complete a minimum of 9 semester hours in courses relating to computer use, at the graduate level, with grades of "B" or better. (An alternative method for meeting this option is to prepare and demonstrate a computer application design which meets a student affairs software need. This application must be approved by the program committee and certified by them to the Graduate School.)

Theoretical Statistics — Complete a minimum of nine semester hours of graduate level courses in advanced theoretical statistics which prepare the student with a theoretical understanding of statistics.

Collateral Field — A collateral field consisting of not less than 12 credit hours of coherently related courses which contribute to the student's proposed area of research must be proposed as a part of the Plan of Study. The Plan, including the Collateral Field, must be approved by the student's program committee as well as the Graduate School.

Psychology Requirements — Doctoral Students in CSPA are required to have a knowledge of appropriate areas in the field of psychology. Those students whose previous education had not included this knowledge will be required to take a minimum of 12 hours of psychology selected with the advice and consent of the program advisor.

Other Requirements — All CSPA Ph.D. students must take and pass both a written comprehensive examination and an oral examination prior to filing the dissertation proposal.

Master of Arts in Educational Leadership

Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations, learning, and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

Program Requirements

The master of arts degree in educational leadership and policy studies provides opportunities for candidates to acquire knowledge about leadership in P-12, community college, higher education, or other educational settings. The program provides opportunities for students to develop in-depth understanding about leadership roles and responsibilities, working with external environments, policy development, organizational behavior, and contemporary educational issues.

Entering students must possess a bachelor's degree from an accredited college or university. The master's degree requires a minimum of 36 semester hours of graduate study of which sixteen hours are core learning experiences. Depending on career goals, students may choose from four concentration areas in the master's program: P-12 education, higher education, adult and continuing education, or an individualized program. Students may obtain the master's degree while also working concurrently on a principal or administrator license. The coursework needed to successfully complete the 36 hours required for the master's degree includes:

Leadership Core — 16 semester hours

ELPS 601 Leadership Development Through Inquiry	3
ELPS 603 Shaping Organizations	5
ELPS 604 Understanding People	3
ELPS 605 External Environments	5

For Concentration in P-12 Education — 8 semester hours

ELPS 654 Supervision of Curricular and Instructional Programs	5
ELPS 660 Law and Administrator	3

For Concentration in Higher Education — 5-6 semester hours

ELPS 668 Higher Education in the U.S.	3
Field-Based Learning (ELPS 606/695; CSPA 661/675)	2-3

For Concentration in Adult and Continuing Education — 5-6 semester hours

ELPS 655 Adult Learning	3
Field-Based Learning (ELPS 606/695; CSPA 661/675)	2-3

For Individually Designed Concentration — 6 semester hours

ELPS Prefix Courses	6
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Additional Requirements — 12-15 semester hours

SRM 600 Introduction to Graduate Research	3
Electives Appropriate for Concentration Area	9-12

Total 36 hours

Admission

Applicants for the master's program must submit an application form, official transcripts, and processing fee directly to the Graduate School. In addition, an application packet available through the Division office (418 McKee Hall) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and a Professional Assessment Form. Admission decisions are made throughout the year.

Notes

Satisfactory performance on a concluding activity approved by Division faculty, in accordance with Graduate School Policy, must be demonstrated.

Educational Specialist in Educational Leadership

Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organization;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Leaders' behavior and actions model their beliefs and values;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders effect positive change in individuals and organizations.

Program Requirements

The Ed.S. represents advanced study in educational leadership and policy. Completion of the program may satisfy requirements for the Colorado Principal or Administrator (central office including superintendent) license or provide advanced study for students preparing for leadership roles in post-secondary education.

The Ed.S. Degree requires 30 hours beyond the Master's Degree. The 30 hours are distributed as follows:

Educational Leadership — minimum of 15 semester hours

ELPS Prefix Courses	15
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Research — minimum of 3 semester hours

SRM 602 Statistical Methods I	3
or	
SRM 670 Evaluation: Models and Designs	
or	
EPSY 674 Measurement I: Educational Testing	

Field-Based Learning — minimum of 3 semester hours

ELPS 606 Internship	3
or	
ELPS 695 Practicum	

Electives — minimum of 9 semester hours

Courses Fulfilling Personal Needs and Interests	9
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Admission

Ed.S. program applicants must submit an application form, official transcripts, three letters of recommendation, and processing fee directly to the Graduate School. In addition, an application packet available through the Division Office (418 McKee Hall) describes materials for admission review by the faculty: current resume, goals statement, and an essay regarding an educational issue.

One set of materials may be submitted for review for admission to the Ed.S. and either the Colorado Principal or Administrator Licensure program; this intent should be clearly described in the student's statement of goals. Admission decisions are made throughout the year.

Doctor of Education in Educational Leadership

Program Requirements

Complete the required credits specified here — minimum 64 (beyond M.A.)

The University of Northern Colorado has a long history of preparing individuals to assume leadership roles in education. Over the years, superintendents, principals, deans, program directors, professors, presidents and other persons in leadership positions in Colorado and across the nation have received academic degrees from the University. UNC graduates assume leadership roles in public and private schools, post-secondary institutions and other education-related organizations.

The underlying philosophy of the Doctor of Education (Ed.D.) program is that educational leaders possess knowledge of self, others, organizations, learning and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values and experiences reflective of a pluralistic society and promote continual learning.

The doctoral program in Educational Leadership is exemplified by these beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

The Ed.D. program faculty use a community-of-scholars model of interaction among students and faculty. The students are viewed as colleagues with progressively higher levels of responsibility and expertise. Cooperative research and other scholarly projects are encouraged among faculty members and students.

The Educational Leadership Approach to Doctoral Study

A sampling of the features which make this program attractive to current and aspiring educational leaders includes:

- a commitment to the professional development of each individual student;
- a content knowledge base which is challenging, provocative, research-based and yet practical and useful;
- a program which is individually designed by each student with guidance by an advisor and program planning committee;
- a cohort approach to learning for two semesters of enrollment;
- instructional techniques and ways of working with students that emphasize the principles and practices of adult learning;
- a commitment by faculty to work with students as colleagues;
- an emphasis on being a student/scholar of leadership;
- a belief that all students who enter the program can successfully complete and in doing so will continue to contribute to the field of education through their coursework, their field-based learning, and their research.

Admission

Ed.D. program applicants must submit an application form, official transcripts, letters of recommendation, Graduate Record Examination General Test Scores and processing fee directly to the Graduate School. In addition, an application packet available through the Division Office (McKee 418) describes materials required for admissions by the Educational Leadership Program: a resume, a written statement of goals and an essay on a current issue. Applicants complete an interview with the Educational Leadership Program faculty. For students who live out-of-state, the interview may be conducted by a conference call. Although admissions decisions are made throughout the year, students who complete the application process by February 15, including the interview, are given priority screening for Fall admissions of that year and have increased opportunities for financial assistance. The application period normally closes on July 1 for Fall admission.

The doctoral program expands upon the foundation gained in study for the master's, specialist, and/or licensure programs. It provides opportunities for candidates to develop breadth in understanding leadership, policy, and research methodologies, and also depth in one or more areas of specialization. The focus of this program is the refinement of students' understandings of leadership and policy development and analysis, ultimately culminating in

the dissertation. The dissertation is meant to contribute to knowledge of a critical issue in educational leadership.

Entering doctoral students who already possess a master's degree in Educational Leadership or a related field complete a minimum of 64 semester hours of graduate credit beyond the master's degree. Students with an educational specialist's degree enroll in a minimum of 42 semester hours beyond the specialist's degree. These semester hour requirements are minimum expectations for students' performance. Credit requirements are a function of the types of learning experiences needed by students to achieve their goals.

Program of Study

The nature of doctoral studies implies a high degree of individualized program development to reflect the personal, professional and academic goals of each student. Consequently, each doctoral student admitted to the program works with an advisor and a program planning committee to develop a learning plan. Despite this flexibility, there are minimum requirements that must be completed by all Ed.D. students:

Required Courses in Educational Leadership — 15 semester hours

All doctoral students enroll in 12 hours of Doctoral Core courses (two six-hour courses) that are taken sequentially in the Fall and Spring semesters (ELPS 751, 752). To broaden and deepen their understanding of issues related to pluralism in education, students take a 3 hour course appropriate to their chosen area of leadership (for example, CSPA 655; EDEL 619).

Concentration Area(s) — 18 semester hours minimum, 9 hours of which must be with ELPS prefix

Students identify one or more concentration areas of study which relate directly to their goals as leaders of educational programs. A concentration area is defined as a body of knowledge represented by a minimum of 9 hours of course work. A minimum of 9 semester hours must be taken that have an ELPS prefix. Concentration areas related to educational leadership include, but are not limited to the following:

- Building Level Leadership
- Central Office Leadership
- Fiscal, Legal, and Policy Aspects of Schools and Higher Education
- Educational Change and Innovation
- Higher Education Leadership
- Human Resource Management in Education
- Professional Development and Adult Learning

In addition, other concentration areas may be designed by the student (for example, educational technology, special education administration, and middle school education).

Research Core — 12 semester hours

At least 12 hours of doctoral level work (beyond SRM 600 or its equivalent) are directed toward developing research design and data analysis skills. Nine hours include the following courses (or equivalents approved by the doctoral program planning committee): SRM 602, 603, 700. The other courses may be selected from offerings in such fields as Educational Psychology, Sociology, or Statistics.

Field-based Learning — 3 semester hours

Besides formal academic coursework, students engage in a field-based learning experience(s) to enhance their practical knowledge and skills. Learning experiences can be an internship (ELPS 606) which is role specific (e.g., taking on the role and responsibilities of a superintendent, principal, or university administrator) and/or a practicum (ELPS 695) which is task specific (e.g., conducting a small-scale study or directing a staff development activity).

Electives — as needed

Students select additional course(s) with the guidance of their program committee to meet their specialized career needs.

Dissertation — 16 semester hours

Before beginning the dissertation, students identify needed resources and refine their skills in order to develop a scholarly dissertation proposal. As part of this development process they must enroll for 4 hours of doctoral Proposal Research (ELPS 797). Twelve semester hours of dissertation credit (ELPS 799) must be taken after formal approval of the proposal.

Doctoral students, in consultation with their advisors, select a program planning committee, comprised of at least three faculty members. This committee works with the student in designing a course of studies which conforms to the standards of the Graduate School and the Educational Leadership program, and also meets the expectations and goals of the student. The program planning committee is convened early in the student's doctoral program (i.e., no later

than the semester following the completion of 9 semester hours) to develop an approved program of studies. The committee is also responsible for the development of the student's comprehensive examination.

Course Requirements

Educational Leadership Required — 15 semester hours, including

ELPS 751 Doctoral Core I	6
ELPS 752 Doctoral Core II	6
Pluralism Issues	3
(e.g., CSPA 655; EDEL 619)	

Concentration Area(s) — minimum 18 semester hours (9 hours must be with ELPS Prefix)

Research Core — minimum 12 semester hours, including

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 700 Advanced Research Methods	3
Research Elective	3

Field-Based Learning — minimum 3 semester hours

ELPS 606 Internship in Educational Leadership	3
or	
ELPS 695 Practicum in Educational Leadership	3
Electives (as needed)	

Dissertation — 16 semester hours

ELPS 797 Doctoral Proposal Research	4
ELPS 799 Doctoral Dissertation	12

Residency

Students must complete at least two academic semester/summer terms of study in residence after having been admitted to the doctoral degree program.

A semester/term in residence is defined as registration for at least nine hours of graduate credit of on-campus work applicable to the doctoral degree. Courses numbered 622 (Directed Study) and 797 (Dissertation Proposal) cannot be counted in the nine or more credit hours unless a student also completes at least six credit hours of on-campus coursework applicable to the doctoral degree. Departmental prefix 799 may not be used under any circumstances to meet the residency requirement.

Elective Courses in Educational Leadership

ELPS 608 Issues in Educational Leadership: Implications for Practice	3
ELPS 650 School Finance and Budgeting	3
ELPS 651 School Business Management	3
ELPS 652 Human Resources in Higher Education	3
ELPS 653 Finance and Resource Management in Higher Education	3
ELPS 654 Supervision of Curricular and Instructional Programs	5
ELPS 655 Seminar in Learning in Adulthood	3
ELPS 657 Families, Communities and Schools	3
ELPS 658 Human Resource Development in P-12 Education	3
ELPS 660 Law and the Administrator	3
ELPS 661 Law and Higher Education	3
ELPS 662 Design and Delivery of Professional Development	3
ELPS 663 Developing Grants and Contracts	3
ELPS 664 Organization and Administration of Community Colleges	3
ELPS 665 Policy Analysis and Development	3
ELPS 666 Planning and Change in Education	3
ELPS 668 Higher Education in the United States	3
ELPS 669 College and University Curriculum	3
ELPS 670 The Principalship: Leadership at the School Site Level	3
ELPS 711 Advanced Theories for Changing Organizations	3
ELPS 747 Leadership at the School District Level	3

Master of Science in Applied Statistics and Research Methods

Program Requirements

Complete the required credits specified here22
 Complete program electives specified here8

This program provides students with a broad understanding of appropriate applications of statistical and research methodology and with experience in using computers effectively for statistical analysis. In the Research Methods track, exposure to a broad variety of methodologies is emphasized. In the Applied Statistics track, emphasis is placed on the concerns that an applied statistician must address in dealing with practical problems.

Completion of this degree will enable the graduate to seek employment in a career field requiring the application of statistical or research methodology, for example, data analysis or experimental design; to teach in a community or junior college; to work as an evaluation/assessment specialist in a public school setting; or to enter a Ph.D. program in statistics, educational research, or a related area.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must have a working knowledge of calculus and linear algebra, submit 3 letters of reference from immediate supervisors or professors, and provide a written statement regarding the relationship of the masters program to the student's professional goals.

RESEARCH METHODS TRACK

Required Credits — 22 semester hours

EPSY 674 Measurement I: Educational Testing	3
SRM 502 Applied Statistics	4
SRM 520 Introduction to Statistical Computing	1
SRM 600 Introduction to Graduate Study and Research	3
SRM 610 Statistical Methods III	3
SRM 670 Evaluation: Models and Designs	3
SRM 680 Qualitative Research Methods	3
SRM 694 Practicum	2

Suggestive Electives — 8 semester hours

Students must complete 8 semester hours from among the following courses. Other graduate courses may be substituted with approval of the student's advisor.

EPSY 675 Measurement II: Advanced Technologies	3
EPSY 686 Advanced Seminar in Measurement and Assessment	3
MED 550 Teaching Applied Probability and Statistics	2
PSY 627 Psychometrics	3
SOC 660 Applied Social Research	3
SRM 551 Mathematical Statistics with Applications I	4
SRM 552 Mathematical Statistics with Applications II	4
SRM 608 Experimental Design	3
SRM 606 Multiple Linear Regression Models	3
SRM 607 Nonparametric Statistics	3
SRM 609 Sampling Methods I	3
SRM 614 Linear Models	3
SRM 619 Resampling Methods	3

SRM 631 Multivariate Analysis I	3
SRM 641 Seminar: Special Topics	1-4
SRM 663 Apprenticeship	1-3
SRM 671 Evaluation: Advanced Methods	3
SRM 681 Advanced Qualitative Research Methods	3
SRM 692 Internship	1-3
SRM 694 Practicum	1-3

Note

A written comprehensive examination is required in each of the following areas:

- Research methodology, evaluation, measurement
- Statistical methods

APPLIED STATISTICS TRACK

Required Credits — 22 semester hours

SRM 502 Applied Statistics	4
SRM 520 Introduction to Statistical Computing	1
SRM 551 Mathematical Statistics with Applications I	4
SRM 552 Mathematical Statistics with Applications II	4
SRM 600 Introduction to Graduate Study and Research	3
SRM 608 Experimental Design	3
SRM 614 Linear Models	3

Suggestive Electives — 8 semester hours

Students must complete 8 semester hours from among the following courses. Other graduate courses may be substituted with approval of the student's advisor.

EPSY 674 Measurement II: Advanced Technologies	3
EPSY 686 Advanced Seminar in Measurement and Assessment	3
MED 550 Teaching Applied Probability and Statistics	2
PSY 627 Psychometrics	3
SOC 563 Qualitative Methods	3
SOC 660 Applied Social Research	3
SRM 606 Multiple Linear Regression Models	3
SRM 607 Nonparametric Statistics	3
SRM 609 Sampling Methods I	3
SRM 610 Statistical Methods II	3
SRM 619 Resampling Methods	3
SRM 631 Multivariate Analysis I	3
SRM 641 Seminar: Special Topics	1-4
SRM 663 Apprenticeship	1-3
SRM 671 Evaluation: Advanced Methods	3
SRM 681 Advanced Qualitative Research Methods	3
SRM 692 Internship	1-3
SRM 694 Practicum	1-3

Note

A written comprehensive examination is required in each of the following areas:

- Statistical theory
- Statistical methods

Doctor of Philosophy in Applied Statistics and Research Methods

Program Requirements

Complete the required and elective credits specified here64

The Doctor of Philosophy degree program produces critical thinkers with conceptual and methodological tools for conducting meaningful research. The focus is on the application of statistical concepts and methodology to the solution of practical problems in a variety of disciplines including, but not limited to, educational research.

The doctoral program is designed to qualify individuals to teach courses at the college level in applied statistics or research methodology, to provide leadership in the conduct of research studies, and to serve as consultants in research methodology and data analysis in education, industry, or government.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must have a working knowledge of calculus and linear algebra, submit 3 letters of recommendation from immediate supervisors or professors, and provide a written statement regarding the relationship of the doctoral program to the student's professional goals.

RESEARCH METHODS TRACK

Required Credits — 40 semester hours

SRM 610 Statistical Methods III	3
SRM 670 Evaluation: Models and Design	3
SRM 671 Evaluation: Advanced Methods	3
EPSY 674 Measurement I: Educational Testing	3
EPSY 675 Measurement II: Advanced Techniques	3
SRM 680 Qualitative Research Methods	3
SRM 681 Advanced Qualitative Research Methods	3
SRM 700 Advanced Research Methods	3
SRM 797 Doctoral Proposal Research	4
SRM 799 Doctoral Dissertation	12

Note that approved electives may be substituted for required courses completed during a Master's program.

Required Cognate Area — 18 semester hours

The student must complete 18 semester hours within a cognate area of his/her choice. These hours must be at the graduate level and must be approved by his/her advisor. The purpose of the cognate is to equip the student in a substantive discipline within which the dissertation may be written.

Suggestive Electives — 6 semester hours

Students must complete 6 semester hours from among the following courses or other graduate courses with approval of the student's advisor.	
MED 550 Teaching Applied Probability and Statistics	2
SOC 563 Qualitative Methods	3
SRM 606 Multiple Linear Regression Models	3
SRM 607 Nonparametric Statistics	3
SRM 609 Sampling Methods I	3
SRM 619 Resampling Methods	3
PSY 627 Psychometrics	3
SRM 641 Seminar: Special Topics	1-3
EPSY 654 Seminar in College Teaching	3
SOC 660 Applied Social Research	3
SRM 663 Apprenticeship	1-6
EPSY 686 Advanced Seminar in Measurement and Assessment	3

SRM 692 Internship	1-6
SRM 694 Practicum	1-6

Notes

1. A written comprehensive examination is required in each of these areas: 1) research, evaluation, measurement theory and 2) cognate area.
2. An oral comprehensive examination is required.
3. A dissertation that demonstrates an original contribution to research methodology or collateral field is required.
4. An oral defense of the dissertation is required.

APPLIED STATISTICS TRACK

Required Credits — 52 semester hours

SRM 631 Multivariate Analysis I	3
SRM 606 Multiple Linear Regression Models	3
SRM 607 Nonparametric Statistics	3
SRM 609 Sampling Methods I	3
SRM 632 Multivariate Analysis II	3
SRM 616 Regression: Advanced Topics	3
SRM 619 Resampling Methods	3
SRM 641 Seminar: Special Topics	1-4
SOC 660 Applied Social Research	3
SRM 663 Apprenticeship	3
or	
SRM 692 Internship	3
SRM 694 Practicum	3
SRM 700 Advanced Research Methods	3
SRM 742 Seminar	3
SRM 797 Doctoral Proposal Research	4
SRM 799 Doctoral Dissertation	12

Suggested Electives — 12 semester hours

Students must complete 12 semester hours from among the following courses. Other graduate courses may be substituted with approval of the student's advisor.

MED 550 Teaching Applied Probability and Statistics	2
SOC 563 Qualitative Methods	3
PSY 627 Psychometrics	3
SRM 641 Seminar: Special Topics	1-3
EPSY 654 Seminar in College Teaching	3
SOC 660 Applied Social Research	3
SRM 663 Apprenticeship	1-6
SRM 670 Evaluation: Models and Design	3
EPSY 674 Measurement I: Educational Testing	3
EPSY 675 Measurement II: Advanced Technologies	3
SRM 680 Qualitative Research Methods	3
SRM 681 Advanced Qualitative Research Methods	3
EPSY 686 Advanced Seminar in Measurement and Assessment	3
SRM 692 Internship	1-6
SRM 694 Practicum	1-6

Notes

1. A written comprehensive examination is required in each of these areas: 1) statistical theory and 2) statistical methods.
2. An oral comprehensive examination is required.
3. A dissertation that demonstrates an original contribution to applied statistics and research methods or a collateral field is required.
4. An oral defense of the dissertation is required.

Master of Arts in Educational Psychology

Program Requirements

Complete the required credits specified here20
 Complete program elective credits specified here10

Admission

Admission to the M.A. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. All complete applications received by mid-term are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. Applications require a description of educationally-related work experience, statement of career goals, three letters of reference, GRE scores and transcripts from previous undergraduate work.

Minimum criteria for acceptance include:

- GRE combined score of 1,500 on the verbal, quantitative and analytical sections with no section falling below 450. The GRE must have been taken within the last five years.
 - GPA of 3.0 in the last 67 semester hours of academic work.
 - Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
 - Congruency between the applicant's career goals and the purpose of the M.A. program.
 - Educationally-related work experience is desirable, but not required.
- Note that in the case of GRE scores and GPA, exceptions may be considered if warranted by special circumstances and individual situations.

Students take the common core of courses listed below and select a concentration in consultation with their advisor. Appropriate emphasis areas might include Learning and Cognitive Processes; Research, Measurement and Evaluation; or Human Development.

Required Credits — 20 semester hours

EPSY 530 Life Span Developmental Psychology	3
EPSY 540 Theories and Principles of Learning	3
SRM 602 Statistical Methods I	3
SRM 600 Introduction to Graduate Research	3
EPSY 661 Trends and Issues In Educational Psychology	3
EPSY 663 Apprenticeship	2
SRM 670 Evaluation: Models and Designs	3
or	
EPSY 674 Measurement I: Educational Testing	3

Elective Credits — 10 semester hours

Students define a concentration area in consultation with their advisor.

Note

SRM 603 and EPSY 699 are highly recommended electives for students intending subsequently to enter a doctoral program. Student competencies are examined by comprehensive examination during fall or spring semesters.

Doctor of Philosophy in Educational Psychology

Program Requirements

Complete the required credits specified here	45
Complete the program elective credits specified here	3
Concentration area requirements	17-19
Program Total	66

The overall goal of the program is to produce scholars capable of undertaking original basic and applied research in psychological processes as they apply to education.

There is considerable emphasis on research training within the program. Research topics of the faculty pertain to fundamental processes in learning and development, to research design and statistics and to applications of the findings from educational psychology to educational settings.

Admission

Admission to the Ph.D. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are typically conducted within four weeks of receipt of the application. All complete applications received by midterm are processed that term. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall term in order to enter the proper sequencing of courses. Minimum criteria for acceptance include:

- GRE combined score of 1650 on the verbal, quantitative and analytic sections, with a minimum verbal score of 500.
- GPA of 3.5 (4.0 scale) in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for success in a doctoral research program.
- A written statement of career goals and a resume.
- Congruency between the applicant's career goals and the purpose of the Ph.D. program.

The doctoral program contains a common core of courses and three emphasis areas: Learning and Cognitive Processes, Human Development, and Research, Statistics and Measurement. All students must take the common core and then specialize in one of the emphasis areas. Depending upon the emphasis area chosen, students must take a minimum of 66 hours to graduate.

Core Requirements — 45 semester Hours — All Doctoral Students

<i>Learning and Cognitive Processes</i>	
EPSY 682 Cognition and Instruction	3
EPSY 685 Advanced Seminar in Learning and Cognition	3
<i>Human Development</i>	
EPSY 630 Childhood and Adolescence	3
EPSY 631 Youth, Adulthood and Aging	3
<i>Research, Statistics and Measurement</i>	
SRM 603 Statistical Methods II	3
SRM 610 Statistical Methods III	3
SRM 670 Evaluation: Models and Designs	3
or	
EPSY 675 Measurement II: Advanced Techniques	3
or	
SRM 680 Qualitative Research Methods	3
SRM 700 Advanced Research Methods	3
<i>Professional Development</i>	
EPSY 661 Trends and Issues in Educational Psychology	3
EPSY 663 Apprenticeship	2
<i>Dissertation</i>	
EPSY 797 Doctoral Proposal Research	4
EPSY 799 Doctoral Dissertation	12

Complete One of the Following Concentration Area Requirements

Learning and Cognitive Processes Concentration — 18 semester hours

<i>Required Credits — 9 semester hours</i>	
PSY 625 Principles of Neuropsychology	3
EPSY 635 Individual Differences in Cognition	3
EPSY 685 Advanced Seminar in Learning and Cognition	3
<i>Required Elective Credits — 9 semester hours</i>	
Students electing to specialize in learning and cognitive processes must select 9 additional hours of courses. Selection of elective hours must be done in consultation with the student's advisor to develop a program of study with a specific focus.	

Human Development Concentration — 17-19 semester hours

<i>Required Credits — 11-12 semester hours</i>	
EPSY 684 Advanced Seminar in Human Development	3
EPSY 694 Practicum	3-9
PSY 664 Advanced Social Psychology	3
PSY 625 Principles of Neuropsychology	3
or	
BIO 524 Behavioral Genetics	2
<i>Required Elective Credits — 6-7 semester hours</i>	
EDEC 539 Issues in Parent Education	3
GERO 625 Issues and Concepts in Gerontology	4
PPSY 675 Intelligence Assessment	3
PPSY 758 Advanced Psychopathology	3
EPSY 654 Seminar in College Teaching	3

Research, Statistics and Measurement Concentration — 18 semester hours

<i>Required Credits — 9 semester hours</i>	
SRM 671 Evaluation: Advanced Techniques	3
EPSY 675 Measurement II: Advanced Techniques	3
SRM 680 Qualitative Research Methods	3
<i>Required Elective Credits — 9 semester hours</i>	
EPSY 654 Seminar in College Teaching	3
EPSY 692 Internship in Educational Psychology	3
EPSY 694 Practicum	3
SRM 604 Advanced Experimental Design	3
SRM 605 Multivariate Analysis I	3
SRM 606 Multiple Linear Regression Models	3
SRM 607 Nonparametric Statistics	3
SRM 609 Sampling Methods	3
SRM 615 Multivariate Analysis II	3

Program Electives3

Chosen in consultation with student's advisor.

Research Tools

Ph.D. students in Educational Psychology must demonstrate competency in two out of the four areas listed below. The following details each research tool and the level of competency required for each:

- Research Design/Applied Statistics — Students must complete the requirements in the Research, Statistics and Measurement concentration with grades of B or better (directed research studies and research-related practica can be counted).
- Computer Applications — Students must complete a minimum of 8 semester hours in courses relating to computer use at the graduate level with grades of B or better.
- or
- A student can develop and demonstrate a computer program written to meet a specific educational research application. This program will be judged as "acceptable" or "unacceptable" by the student's advisor.
- Evaluation — Demonstration of competency in evaluation will involve completing a minimum of 12 hours in evaluation courses, e.g., SRM 670, SRM 671 and PPSY 781 (or their equivalent in transfer credits) with grades of B or better.
- Foreign Language — Students must pass the ETS (or other faculty approved) examination in any major modern foreign language with a score at the 50th percentile or better.

Notes

Upon entrance, a candidate must be able to satisfy the core course requirements for the M.A. degree in educational psychology, or must take additional courses to meet those requirements. M.A. core courses that will not count toward the doctoral degree requirements include SRM 600, SRM 602, EPSY 530, EPSY 540 and EPSY 674. The remaining core courses may count as electives in the doctoral program: EPSY 661, SRM 670 and EPSY 663.

Program concentration areas are distinguished on three criteria: course emphasis, dissertation focus and practicum experience. For example, a student selecting the learning and cognition emphasis would take the required coursework in the learning and cognition area, write a dissertation on a problem related to learning and cognition and do a practicum related to that specialty area. Student competencies in the core and specialty areas are examined by both oral and written comprehensive examinations. Written exams are administered twice a year during fall and spring semesters. Specific procedures for comprehensives are available from the program secretary. In addition, students will submit a written paper and give an oral presentation to the program faculty before the second letter of encouragement will be sent to the student as part of the review process.

Master of Arts in Educational Media

Program Requirements

Complete the required credits specified here36-39

Students Interested in obtaining a School Library Media endorsement who do not already hold a master's degree may enroll in the master's degree in educational media. This program has been designed to meet the requirements for an M.A. degree as well as to meet the graduate program requirements and competency requirements dictated by the State of Colorado for School Library Media endorsement.

Admission

Admission to the M.A. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are held each semester (including summer). Decisions regarding admission are communicated to the applicant before the beginning of the semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

Applications require a description of educationally-related work experience, statement of career goals, three letters of reference, GRE scores and transcripts from previous undergraduate work.

Multiple criteria for acceptance are considered, including:

- GRE combined score of 1,500 on the verbal, quantitative and analytical sections. The GRE must have been taken within the last five years.
- GPA of 3.0 in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
- Congruency between the applicant's career goals and the purpose of the M.A. program.
- Educationally-related work experience is required.

Note that applicants must also complete the Notification of Intent to Seek Endorsement (institutional recommendation).

Required Credits — 36-39 semester hours

EPSY 540 Theories and Principles of Learning	3
SRM 600 Introduction to Graduate Research	3
ET 500 Introduction to Performance Technology	3
ET 502 Instructional Development	3
ET 503 Computers In Education	3
ET 504 Instructional Materials Design	3
ET 530 Media Cataloging and Classification	3
ET 533 Reference and Information Management	3
ET 535 Administration of Instructional Resources	3
ET 536 Media Selection, Utilization and Evaluation	3
EDFE 610 Field Experience (K-6)	3
(Required for K-6, K-12 Endorsement)	
EDFE 610 Field Experience (7-12)	3
(Required for 7-12, K-12 Endorsement)	
EDRD 614 Children's and Adolescent's Literature	3

Notes

Students may transfer up to 6 semester hours or 9 quarter hours of approved graduate level credit to the program from other accredited institutions. Any coursework to be transferred must have been completed within five years of the graduation date.

All coursework to be transferred or applied to meet graduate course requirements that was completed before a student's acceptance into a graduate degree program must be approved by the UNC Graduate School.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Students wishing to obtain an M.A. who do not intend to apply for State of Colorado School Library Media Endorsement should apply to the M.A. program in Educational Technology.

Master of Arts in Educational Technology

Program Requirements

Complete the required credits specified here21
 Complete program elective credits specified here9

The Master of Arts degree in Educational Technology is designed to develop knowledge and skills in instructional system analysis, computer applications and media design. Application of knowledge and skills is focused on improving human performance in applied learning contexts.

Admission

Admission to the M.A. degree program is a two-step process. First, the applicant must apply to the UNC Graduate School. Upon meeting the admission criteria for the Graduate School, the candidate's application is forwarded to the program area faculty for review. Reviews by the program area faculty are held each semester (including summer) following midterm exams. Decisions regarding admission are communicated to the applicant before the beginning of the next semester. Although students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

Applications require a description of educationally-related work experience, statement of career goals, three letters of reference, GRE scores and transcripts from previous undergraduate work.

Multiple criteria for admission are considered, including:

- GRE combined score of 1,500 on the verbal, quantitative and analytical sections. The GRE must have been taken within the last five years.
- GPA of 3.0 in the last 60 semester hours of academic work.
- Three letters of recommendation indicating a high potential for academic success and interpersonal competency.
- Congruency between the applicant's career goals and the purpose of the M.A. program.
- Educationally-related work experience is desirable, but not required.

Required Credits — 21 semester hours

EPSY 540 Theories and Principles of Learning	3
SRM 600 Introduction to Graduate Research	3
SRM 602 Statistical Methods I	3
ET 500 Introduction to Performance Technology	3
ET 502 Instructional Development	3
ET 503 Computers In Education	3
ET 504 Instructional Materials Design	3

Elective Credits — 9 semester hours

Elective courses to be selected to develop or support a student's teaching or research interests.

Doctor of Philosophy in Educational Technology

Program Requirements

Complete the required credits specified here52
 Complete program elective credits (approved in plan of study) 15

The Doctor of Philosophy in Educational Technology program focuses around the convergence of three major communication and information industries (broadcasting and motion picture, print and publishing and computer) into a single industry. Educational Technology professionals must be prepared to function within the converged industries rather than in only one historically distinct industry. The UNC doctoral program in educational technology prepares graduates who will be leaders after the convergence. The doctoral program uses a community of scholars model of interaction among the students and the faculty members. The students are viewed as developing colleagues with progressively higher levels of responsibility as they move through the program. Cooperative research and other scholarly projects are encouraged between faculty members and students. The doctoral program in educational technology provides the students with a broad base of knowledge in the use of technology in educational and training settings.

The doctoral program is specifically designed to increase the levels of competence achieved in the master's degree program in educational technology. Students entering the doctoral program must have a master's degree in educational technology or a related field. Students in the educational technology program master a set of common program objectives and a set of objectives specific to an emphasis area in either instructional development/design, interactive technologies, technology integration or distance education.

Western Regional Graduate Program

The Ph.D. program in educational technology is a member of the Western Regional Graduate Program. Under this program any Ph.D. student in educational technology, who is a resident of selected western states pays in-state tuition rather than out-of-state tuition. The selected states include: North Dakota, South Dakota, Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Nevada, Arizona, Washington, Oregon, Alaska and Hawaii.

Admission

The program is designed to be rigorous but practical, encouraging the serious, mature, motivated and competent student to apply for admission. Applications are reviewed by the educational technology faculty during the middle of each semester. Although the students may enroll any semester following admission, they are strongly encouraged to begin their program in either the summer or fall semester in order to enter the proper sequencing of courses.

All applications must include the following items:

- Graduate Record Examination Scores
- Transcripts from all previous undergraduate and graduate work
- Two page statement of career goals
- Three letters of recommendation
- Description of previous teaching and other work experience
- In addition, an interview will be arranged with the faculty.

Minimum criteria for acceptance include:

- Minimum combined verbal, quantitative and analytical score of 1650 on the Graduate Record Examination taken within the last five years with individual verbal, quantitative and analytical scores above 500.
- Grade point average of 3.2 on the most recent 60 semester hours of coursework.
- Congruency between the applicant's career goals and the goals of the doctoral program.
- Letters of reference indicating a strong potential for academic success, interpersonal competency and growth of the individual as a designer, producer, implementor, teacher, scholar, evaluator and researcher in educational technology.
- Relevant work experience is desirable.
- Successful interview with the faculty.

Program and Graduation Requirements

Once admitted to a program, students must maintain a satisfactory grade point average of 3.2. The student must complete a minimum of two consecutive semesters as a full-time student (9 semester hours) and be registered for resident credit offered on-campus and applicable to the doctoral degree. A minimum of 67 semester hours beyond the master's degree is required for the doctorate in educational technology.

At the end of the doctoral student's first semester in residence or 15 semester hours in the program and at the end of the student's second semester or 30 semester hours, the educational technology program notifies the student in writing that the student is: 1) encouraged to continue in the program, 2) discouraged from continuing in the program, or 3) placed on review for one semester. If the student is placed on review he or she is then reviewed again at the end of the next term. At that time, the student is either encouraged to continue in the program or is asked to terminate the program.

Each doctoral student must pass a written comprehensive examination for the degree. This examination cannot be taken until the student has completed the residency requirement and at least 36 semester hours beyond the master's degree with a grade point average of 3.2 or higher. The student must also have received two letters of encouragement from the educational technology program faculty before taking the written comprehensive examination. Two unsuccessful performances on the written examination will result in dismissal from the program. Successful performance on the written comprehensive examination is a prerequisite to entrance to the oral examination. The oral examination may include questions from any part of the student's program and is designed to test the student's understanding of the field of educational technology. Two unsuccessful performances on the oral examination will result in dismissal from the program. Successful performance on both written and oral examination is a prerequisite to both doctoral candidacy and the dissertation.

The dissertation research advisor and the research committee for the dissertation are appointed after the student has passed both written and oral comprehensive examinations. The dissertation proposal and dissertation are completed under the supervision of the research advisor and research committee. Once the dissertation proposal has been accepted by the research committee and by the Graduate School, the student's name will be submitted to the Graduate School for admission to doctoral candidacy. The doctoral dissertation will be examined by members of the research committee in an oral defense.

Required Credits — 52 semester hours

Since the program of study builds upon the requirements for the M.A. degree in educational technology, students must have taken comparable coursework to satisfy the educational technology core requirements of the UNC M.A. degree in educational technology or must take these courses as electives in the doctoral program. All doctoral students must complete the common educational technology core, the research methodology core, and specialize in one of the four emphasis areas.

Educational Technology Core

ET 524 Design of Computer Assisted Instruction	3
ET 602 Instructional Analysis and Design	3
ET 604 Advanced Design of Instructional Materials	3
ET 692 Internship	3
or	
ET 693 Practicum	
ET 784 Doctoral Seminar in Educational Technology	3
ET 797 Doctoral Proposal Seminar	4
EPSY 682 Cognition and Instruction	3
or	
ELPS 655 Seminar in Learning in Adulthood	

Research Methodology Core

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 610 Statistical Methods III	3
or	
SRM 680 Qualitative Research Methods	3
SRM 700 Advanced Research Methods	3

Dissertation

ET 799 Doctoral Dissertation	12
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Each student will complete 6 semester hours of coursework in one of the four emphasis areas.

Emphasis Area: Instructional Development/Design

ET 650 Corporate Course Design	3
ET 702 Instructional Design Theory	3

Emphasis Area: Interactive Technologies

ET 627 Computer Assisted Instruction Authoring Systems	3
ET 628 Interactive Video Technologies	3

Emphasis Area: Technology Integration

ET 680 Integration of Technology into Curriculum	3
ET 735 Design of Complex Technology Systems	3
ET 780 Diffusion of Technological Innovations	3

Emphasis Area: Distance Education

ET 613 Instructional Telecommunications	3
ET 615 Distance Education: Theories and Practice	3

Elective Courses: 15 Semester Hours

General Electives	9
Electives from outside Educational Technology	6
and program required courses	

Research Tools

Doctoral students in educational technology must demonstrate competency in two out of the four research tools listed below:

1. Research Design/Applied Statistics/Quantitative Methods — Students must complete the 12 semester hours (excluding ET 797) in research methodology courses with an overall GPA of 3.0 or better.

2. Computer Applications — Students must complete a minimum of 9 semester hours in graduate courses relating to computer use with grades of "A" or "B."

or
A student can develop and demonstrate a computer program written to meet a specific application in education. This program will be judged as "acceptable" or "unacceptable" by the student's doctoral committee.

3. Evaluation — Students must complete a minimum of 9 semester hours in evaluation courses (e.g., SRM 670, SRM 671 and PPSY 781) with grades of "A" or "B."

4. Foreign Language — Students must pass the Educational Testing Service or other faculty approved examination in any major modern foreign language with a score at the 50th percentile or higher.

Master of Arts in Interdisciplinary Studies Emphasis in Teacher Education

Program Requirements

Complete required core courses	18
Completed required course concentration	12-17

The Master of Arts in Teacher Education is a comprehensive degree program coordinated by the School for the Study of Teaching and Teacher Education. It provides advanced study focused on the following themes: teacher leadership; alternate teaching and assessment strategies; and teacher as researcher. In addition, students enrolling in this degree program will select an area of concentration from the following: Diversity in Education; Mathematics and Science; Bilingual Education; Teaching English as a Second or Other Language; or Middle Level Education.

Admission

Applicants must follow the admission procedures outlined under "Admission to a Graduate Interdisciplinary Program" and must meet the minimum admission requirements for the master's degree. Applications meeting minimum Graduate School admission requirements will be forwarded to the School for the Study of Teaching and Teacher Education for review and recommendation regarding admission by the Graduate School. In addition to the basic application requirements, applicants are required to document successful teaching experiences, possess or be eligible for a Colorado teaching license, and develop an application portfolio which demonstrates the congruence between their professional background and the program outcomes.

Required Core Courses — 18 semester hours

TED 600 Professional Seminar I	1
TED 601 Conceptions of Schooling	3
TED 602 Teacher Leadership	3
TED 603 Alternative Teaching and Assessment Strategies	3
TED 604 Affirming Diversity: Implications for Educators	3
TED 605 Professional Seminar II	2
SRM 600 Introduction to Graduate Research	3

Course Concentration — 12-17 semester hours (select from one of the following):

A) Diversity in Teaching — 12 semester hours	
EDSE 506 Seminar in Mainstreaming	3
PPSY 508 Workshop: Family Systems	3
EED 541 Teaching Language and Composition	3
EDFE 601 Practicum	3

B) Mathematics and Science — 12 semester hours	
ENST 510 Environment and Environmental Problems	3
EDEL 508 Problem Solving in Mathematics	3
ESCI 550 Strategies for Teaching Earth Science	3
EED 502 The Teaching of Writing	3
C) Linguistically Different: English as a Second Language — 17 semester hours	
EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessment of ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
EDLD 605 Advanced Seminar in Bilingual Education and TESOL	3
ENG 633 Studies in Linguistics	3
HISP 513 Teaching the Mexican American Child	3
D) Linguistically Different: Bilingual Education (17 semester hours)	
EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessment of ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
EDLD 605 Advanced Seminar in Bilingual Education and TESOL	3
*SPAN 513 Contrastive Features	3
*SPAN 555 Children's and Adolescent Literature in Spanish	3
<i>*These courses are taught in Spanish.</i>	
E) Middle Level Education — 15 semester hours	
EDMS 665 Theory, Philosophy and Curriculum in Middle School	3
EDMS 667 Assessment, Design and Evaluation of Elementary and Middle School Curriculum	3
EDMS 669 Integrated Curriculum for the Middle School	3
EDRD 620 Reading in Middle and Secondary Schools	3
EDMS 601 Practicum	3

Notes

All students are required to pass a written comprehensive examination or defend a program portfolio covering all aspects of the completed coursework.

All Graduate School requirements for the interdisciplinary master's degree must be met. The degree awarded will be an Interdisciplinary Master of Arts degree.

Students pursuing a course concentration for added endorsement to a Colorado teaching license must take and successfully complete the appropriate Program for Licensing Assessments for Colorado Educators (PLACE) examination.

Elementary Professional Teacher Education Program

Program Requirements

Complete General Education Program	40
Complete the required courses for the Elementary PTEP	43
Complete a liberal arts major	39-70
Total (minimum hours)	122-153

The Elementary Professional Teacher Education Program (PTEP) is designed to prepare students to teach at the K-6 level. Students selecting this program will be assigned to a cohort group beginning with Educational Seminar III. Students will be assigned an elementary education advisor beginning with Educational Seminar I.

Students must make formal application to the Elementary Professional Teacher Education Program prior to enrollment in Seminar I and II courses. Information regarding the application process is available at Seminar I application meetings offered throughout the semester. Contact the School for the Study of Teaching and Teacher Education in McKee 216 for further information.

Prerequisites:

- Sophomore status or above at time of application.
- 2.75 grade point average at UNC. First semester transfer students may also apply; the GPA will be reviewed at the end of the semester.

Marked Entry

Students must also apply for admission into Seminars III, IV, and V through a Marked Entry Event.

Prerequisites:

- Admission into Seminar I and II.
- Completion of Seminar I and II courses.
- 3.00 UNC GPA.
- Oral proficiency.

Master of Arts in Elementary Education

Program Requirements

Complete the required credits specified here	24
Complete program elective credits specified here	9
Must apply through the Graduate School	

The Master of Arts Degree in Elementary Education prepares a licensed classroom teacher to address instructional programs more effectively as a master teacher and curricular leader. Students seeking this degree must have evaluations by the College of Education and The School for the Study of Teaching and Teacher Education and also are required to document two years of successful teaching experience, before the awarding of the M.A. degree. Program flexibility allows the experienced teacher to pursue global and specific content. Researched applications in elementary education and related areas are highlighted. Students must also complete a four hour written comprehensive examination.

Demonstration of appropriate literacy and competency in computer applications is required. ET 503 or the equivalent may be used to meet this requirement.

Required Credits — 15 semester hours

EDEL 601 Practicum in Elementary Education	3
EDEL 612 Elementary School Curriculum	3
EDEL 619 Pluralism in Education	3
EDRD 612 Reading in the Elementary School	3
SRM 600 Introduction to Graduate Research	3
Note that EDEL 601, EDRD 612 must be taken and completed at UNC.	

Elective Credits — 6 semester hours

EDEL 620 Researched Applications for Instruction in Mathematics, K-9	3
EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9	3

Information regarding the Marked Entry Event is available at the application meetings offered throughout the semester. Contact the School for the Study of Teaching and Teacher Education for further information.

Required Courses — Elementary PTEP

<i>Educational Seminar I (courses are to be taken concurrently)</i>	
EDF 366 Conceptions of Schooling	4
ET 201 Technology in Education	1
<i>Educational Seminar II (courses are to be taken concurrently)</i>	
EPSY 347 Educational Psychology for Elementary Teachers	3
EDSE 430 Exceptional Students in the Elementary Classroom	2
<i>Educational Seminar III (courses are to be taken concurrently)</i>	
EDEL 430 Learning about Teaching and Learning	6
ET 301 Educational Technology Applications	1
<i>Educational Seminar IV</i>	
EDEL 460 Integrated Methods I: Reading, Language Art, Science, Health	9
or	
EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music, Physical Education	9
<i>Educational Seminar V (courses are to be taken consecutively)</i>	
EDEL 460 Integrated Methods I: Reading, Language Arts, Science, Health	9
or	
EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music, Physical, Education	9
and	
EDEL 490 Student Teaching and Debriefing Seminar	8
Educational Seminars III, IV and V are to be taken in sequence. Courses in each seminar are prerequisites for those in subsequent seminars. Courses in Educational Seminars III, IV, and V will be taught in partner schools. Students will be expected to student teach in Partnership Schools in or around the Greeley area.	

EDEL 650 Researched Applications for Instruction in Social Studies	K-9, 3
EDEL 679 Researched Applications for Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School	3
SCED 671 Science Curriculum in the Elementary School	2
Choose two from the above for a total of 6 credits. EDEL 620, EDEL 645, EDEL 650 and EDEL 679 must be taken and completed at UNC.	

General Electives — 9 semester hours

Complete sufficient electives for a total of at least 30 semester hours. These must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. Electives may be taken in general elementary education (600 numbered level courses), within other program areas in the College of Education (i.e., EDEC, EDRD, EDMS, SPED, ET, etc.), or within other areas in the University that would strengthen professional skills (i.e., sciences, mathematics, English, art, music, etc.). A maximum of 9 semester credit hours in 500-level numbered elementary education course requirements or electives may be applied as elective credit toward a graduate degree program in elementary education.

Notes

Students may petition for course equivalence consideration for a maximum of two classes in electives and required courses except where otherwise noted.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Middle Grades Professional Teacher Education Program

Program Requirements

Complete General Education Program	40
Complete the required courses for the Middle Grades PTEP	40
Required Support Teaching Field	0-18
Complete the liberal arts major	39-70
Total	120-169

The Middle Grades Professional Teacher Education Program is designed to prepare students to teach in grades 5-9. The students selecting this program will be assigned an advisor in Middle Grades Education.

Required Support Teaching Field — 18 semester hours

A support teaching field is required for Middle Grades Licensure. The support field consists of 18 hours of electives in one of the four broad fields of math, science, social studies, or language arts, which is other than the academic major. There are three options: Option 1) Build an 18 hour broad field using General Education courses and electives, Option 2) Select a minor, or Option 3) Select two broad fields, other than the major, with nine hours in each field for an interdisciplinary support field. In all options one half of the hours or nine hours must be taken at the 200-level or above. If Options 1 and 3 are selected, there will be few additional electives needed for the program of study. A Middle Grades Advisor MUST be consulted when selecting a support field and required electives.

Students will make formal application and complete Marked Entry while enrolled in EDMG 200. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus, and the GPA will be evaluated at the end of the semester.

<i>Pre-Professional Cluster (courses are to be taken concurrently)</i>	
EDMG 200 Exploring Teaching: Emphasis Middle Grades	2
ET 201 Technology in Education	1
<i>Introductory Cluster (courses are to be taken concurrently)</i>	
EDMG 320 Introduction to Middle Grades Education	3
EDF 366 Conceptions of Schooling: Context & Process	4
EDSE 311 Including Exceptional Students in the Middle Grades Classrooms	1
<i>Intermediate Cluster 1 (courses are to be taken concurrently)</i>	
EDMG 420 Middle Grades Teaching and Learning	3
EDRD 340 Developing Language and Literacy of Middle Grades Students	2
EPSY 348 Educational Psychology for Middle School Teachers	3
<i>Intermediate Cluster 2 (courses are to be taken concurrently)</i>	
EDMG 440 Middle Grades Integrated Curriculum and Instruction	5
EDSE 411 Strategies for Teaching the Exceptional Student in the Middle Grades	2
EDRD 440 Integrating Language and Literacy Across the Middle Grades	1
ET 301 Educational Technology Applications	1
<i>Middle Grades Internship (courses are to be taken concurrently)</i>	
EDMG 490 Middle Grades Student Teaching	12
EDMG 491 Middle Grades Student Teaching Seminar	1

Clusters are to be taken in sequence.

Master of Arts in Elementary Education Emphasis in Middle School

Program Requirements

Complete the required credits specified here	24
Complete program elective credits specified here	9
Must apply through the Graduate School	

The Master of Arts Degree in Elementary Education Emphasis in Middle School is designed for elementary, middle school, junior high and secondary licensed teachers who wish to pursue graduate work that focuses on the middle level education. Because current licensure standards allow elementary, middle school and secondary licensed teachers to teach at this level, the program is open to all licensed teachers interested in middle school teaching. Students completing this program will not automatically receive middle school licensure. Students must have a teaching license before completing the master's program. Students must also complete a four hour written comprehensive examination.

Required Credits — 24 semester hours

<i>Middle School Education Core</i>	
EDMS 601 Practicum	3
EDMS 665 Theory, Philosophy and Curriculum in Middle School	3
EDMS 667 Assessment, Design and Evaluation of Elementary and Middle School Curriculum	3
EDMS 669 Integrated Curriculum for the Middle School	3
EDMS 670 Instructional Practices in Middle Grades	3
SRM 600 Introduction to Graduate Research	3
EDEL 619 Pluralism in Education	3

Note that the practicum is designed as a culminating experience for the degree program. It must be approved by the student's advisor and adhere to the guidelines established by the program area.

Reading — 3 semester hours

EDRD 620 Reading in the Middle and the Secondary School	3
or	
EDRD 621 Critical Reading and Thinking in Content Subjects	3

Electives — 9 semester hours

Electives are determined by the candidate's need to develop or strengthen understanding and competency in areas related to his or her professional growth and development with approval of student's advisor. Special consideration will be given to the professional growth activities approved and required by the student's school district or institution in planning the M.A. program. The following courses may be relevant to a student's professional development.

EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDEL 620 Researched Application for Instruction in Math K-9	3
EDEL 640 Researched Application for Instruction in Language Arts K-9	3
EDEL 650 Researched Application for Instruction in Social Studies K-9	3
EPSY 530 Life Span Developmental Psychology	3
PPSY 562 Teacher Effectiveness	3
SCED 671 Science Curriculum in the Elementary Schools	3

Notes

Students may petition for course equivalence consideration for a maximum of two classes in electives and required courses except where otherwise noted.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Secondary Professional Teacher Education Program

Program Requirements

Complete General Education Program	40
Complete Required Content Major	39-70
Complete minor or required minor where appropriate	0-27*
Complete Secondary PTEP	38-41
Total (minimum hours)	120-178

The Secondary Professional Teacher Education Program is designed to meet the licensure requirements for teaching at the secondary levels (grades 7-12).

Students will make formal application and complete Marked Entry while enrolled in STEP 160. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus, and the GPA will be evaluated at the end of the semester.

Secondary Professional Teacher Education Program

The following three courses are to be taken concurrently during the first semester of your program:

STEP 160 Introduction to Secondary Teaching	2
STEP 161 Observation/Analysis Secondary Teaching	1
ET 201 Educational Technology	1

The following four courses are to be taken concurrently:

EDF 366 Conceptions of Schooling	4
EDSE 360 Adaptation Modification & Integration of Curriculum for the Secondary Learner	3
STEP 262 Observation/Analysis Secondary Teaching II	1
EPSY 349 Educational Psychology for Secondary Teachers	3

The following four courses are to be taken concurrently:

STEP 363 Clinical Experience: Secondary	2
EDRD 324 Secondary Content Area Literacy	2
ET 301 Educational Technology Applications	1
XXXX Secondary Methods	3-6

Students will select the appropriate method course(s) from these existing classes:

EED 341-541 Methods and Materials for Teaching Language and Composition in the Secondary School	3
EED 402 Methods and Materials for Teaching Literature in the Secondary Schools	3
FL 341 Methods of Teaching in the Secondary School	3
GEOG 410 Teaching Geography in the Secondary School	1
HIST 498 Teaching History in the Secondary Curriculum	1
SOSC 341 Teaching Secondary Social studies	3
SCED 441 Methods of Teaching Secondary School Science	3
SOSC 341 Teaching Secondary Social Studies	3
MED 341 Methods of Teaching Mathematics	3
SPCO 352 Methods of Teaching Secondary Communication	3
THEA 385 Methods of Teaching Drama	3
STEP 490 Secondary Student Teaching	15

*Some academic departments require all majors to complete a minor, which range from 18-27 hours. Refer to Academic Program for specifics.

K-12

Students completing a licensure program in Music, Physical Education, Visual Arts, and Special Education will make formal application and complete Marked Entry while enrolled in EDFE 270. A minimum grade point average of 2.50 is required prior to enrollment. First semester transfer students may enroll their first semester on campus and the GPA will be evaluated at the end of the semester. In addition to courses required in the major, students will also be required to complete the courses listed under Professional Teacher Education Programs located in the beginning of the bulletin.

Master of Arts in Elementary Education: Early Childhood Education Emphasis in Primary Education

Program Requirements

Complete the required credits specified here	26
Complete program elective credits specified here	7-9

Must apply through the Graduate School

Prerequisites

Students who are not licensed in elementary education must have their transcript evaluated by the School for the Study of Teaching and Teacher Education. This program does not lead to initial licensure. Licensure in elementary education is not a prerequisite for students for whom one or more of the following conditions applies: a) the student is licensed K-2 or K-3 or some other designation embracing a licensure that covers a similar portion of the current K-6 Colorado licensure; b) the student plans to work only with preschool-age children or otherwise work in settings that elementary licensure is not required; or c) the student is not a United States citizen and plans to return to a situation separate from any direct association with United States schools. Students must also complete a four hour written comprehensive examination.

Two years of experience with young children or the equivalent is expected. Students without prior experience with young children in an educational setting must successfully complete the following program prerequisites: EDEC 601 or equivalent and a course in child development. Credits earned in prerequisite coursework may not be counted toward the 33-35 credit hours required in the M.A. program.

Demonstration of appropriate literacy and competency in computer applications is part of this program. ET 503 or the equivalent may be used to meet this requirement.

The successful completion of an exit experience is required before fulfillment of all program requirements will be acknowledged.

Required Credits — 26 semester hours

Students are limited to a maximum of 9 semester credits of 500-level and/or double-numbered courses for inclusion in the master's program.

* EDRD 519 Reading/Writing Development of Preschool/Primary Children	2
* EDEC 539 Parent Education and Involvement in Early Childhood/ Primary	3
* EDEC 648 Psycholinguistics in Early Childhood	3
* EDEC 660 Critical Issues in Early Childhood	3
* EDEC 664 Seminar in Early Childhood and Primary Education	3
* EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education	3
* EDEC 675 Play and Psychosocial Development in Early Childhood	3
EDRD 612 Reading in the Elementary Grades	3
SRM 600 Introduction to Graduate Research	3

Elective Credits — 7-9 semester hours

Choose additional coursework in consultation with major advisor to total 7-9 semester hours.

EDEC 508 Early Childhood Workshop	3
*EDEC 601 Practicum in Early Childhood	1-4
EDEC 662 Research and Teaching in Early Childhood and Primary Education	3
EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child	3
EDEC 677 Problem Solving in Early Childhood and Elementary Mathematics	2
EDEC 680 Play and Development of High Risk Children	2
EDEL 619 Pluralism in Education	3
EDEL 620 Researched Applications for Instruction in Mathematics, K-9	3
EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9	3
EDEL 650 Researched Applications for Instruction in Social Studies, K-9	3
EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 617 Evaluation and Improvement of Reading and Related Abilities	3
EPSY 630 Child and Adolescent Psychology	3
SCED 671 Science Curriculum in the Elementary School	2

Notes

The master's degree program in Early Childhood/Primary Education is designed to meet the specific needs and interests of professional teachers in the primary grades.

Applicants must have an overall 3.0 GPA on the last 100 quarter hours/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Endorsement in Early Childhood Education

Students who meet the following prerequisites and who complete courses specified with an asterisk (*) are eligible to seek institutional recommendation for Endorsement in Early Childhood Education from the Colorado Department of Education.

Prerequisites: 1) Hold or be eligible for a Colorado Teaching License, Endorsed Elementary; 2) completion of a minimum of one course in human growth and development (or its equivalent) before enrolling in the endorsement program; and 3) evaluation of supervised field experiences and teaching experiences to assess practicum placement needs associated with this endorsement.

Required courses for endorsement: EDRD 519 or EDEC 648 and EDEC 539, 601, 660, 664, 670 and 675.

Doctor of Education in Elementary Education

Program Requirements

Complete the required credits specified here46-48
Complete program elective credits specified here21
Must apply through the Graduate School

Students who complete the Ed.D. in Elementary Education are prepared for positions of leadership in public and private schools and for colleges, universities, agencies, businesses and government entities. Graduates reflect expertise for teaching, consulting, publishing, research and other professional services.

Graduate applicants for this degree must have evaluations by the School for the Study of Teaching and Teacher Education, in addition to the Graduate School, in order to determine admissibility. Applicants must be licensed or eligible for the same to enter this program. Programs of study for degree candidates will be individualized to meet candidate's career goals. A minimum of 64 semester hours are required for the completion of this program. The extent of an individual's program will be dependent upon previous college work and professional experience.

Required Research Credits — 25 semester hours

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 700 Advanced Research Methods	3
*EDEL 797 Doctoral Proposal Research	4
*EDEL 799 Doctoral Dissertation	12
Note that SRM 602 is to be taken concurrently with EDEL 710. SRM 603 must be taken concurrently with EDEL 711. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. ET 503: Computer Based Education (3) is a recommended course.	

Required Doctoral Credits — 21-23 semester hours

*EDEL 725 Seminar in Elementary School Mathematics	2
*EDEL 745 Seminar in Elementary School English	2
*EDEL 755 Seminar in Elementary School Social Studies	2
*EDEL 790 Supervised Practicum in College Teaching	3
*EDRD 745 Topical Seminar in Reading	2-4
*EDRD 750 The Contributing Professional in Reading	2-4
EDF 740 Psychological Foundations of Education	2
EDF 765 Sociological Foundations of Education	2
EDF 785 Philosophical Foundations of Education	2
Note that a minimum of 15 semester hours must be selected in consultation with the advisor.	

Elective Credits — 21 semester hours

There are two categories of elective coursework, general and external. Students must complete a minimum of 21 hours of elective coursework from one or both categories. Most students choose to balance their elective coursework by selecting electives in both categories.

General Electives

SRM 680 Qualitative Research Methods	3
EPSY 674 Measurement: Educational Testing	3

ET 528 Programming	3
ET 503 Computer-Based Education	3
*EDEL 612 Elementary School Curriculum	3
*EDEL 619 Pluralism in Education	3
*EDRD 612 Reading in the Elementary School	3
*EDEL 601 Practicum in Elementary Education	3
*EDEL 620 Researched Applications for Instruction in Mathematics, K-9	3
*EDEL 645 Researched Applications for Instruction in the English Language Arts, K-9	3
*EDEL 650 Researched Applications for Instruction in Social Studies, K-9	3
*EDEL 679 Researched Applications for Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School	3
SCED 671 Science Curriculum in the Elementary School	2
EDEL 660 Critical Issues in Early Childhood Education	3
EDEL 662 Research and Teaching in Early Childhood and Primary Education	3
EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child, 3	3
EDEC 664 Seminar in Early Childhood and Primary Education	3
EDEC 675 Play and Psychosocial Development in Early Childhood	3
EDEL 508 Elementary Education Workshops (maximum 4)	4
EDEL 622 Directed Studies	1-3
EDEL 678 Outcomes-Based Education	3
EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 645 Reading/Literacy Research	3

Note that students are responsible for course content, for the above * courses, on doctoral comprehensive exams. In consultation with advisor, students may include 10-21 semester hours from these courses in the doctoral program of study or may elect other approaches to acquire the knowledge and application bases inherent within contexts of formal courses listed.

External Electives

In consultation with advisor, students may select 10-16 graduate semester hours from other program support areas in the College of Education (i.e., EDEC, EDRD, EDMS, SPED, ET, EDF, etc.) or within other colleges/areas in the University that would strengthen professional skills (i.e., sciences, business, foreign languages, women's studies, anthropology, visual arts, aerospace studies, black studies, community health, communication, social sciences, mathematics, music, college student personnel administration, English, multicultural studies, psychology, humanities, recreation, etc.)

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Doctor of Education in Elementary Education: Early Childhood Education

Program Requirements

Due to a major review and revision process, students should contact the School for the Study of Teaching and Teacher Education, McKee 216, to obtain detailed information regarding the program.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Master of Arts in Reading

Program Requirements

Complete the required credits specified here	25
Complete program elective credits specified here	9
Must apply through the Graduate School	

The Master of Arts degree program in Reading prepares a student to function more effectively as an elementary or secondary classroom teacher; to direct reading programs, staff development and curriculum development at a school level and for many literacy-related jobs. Students may also fulfill requirements for institutional recommendation for endorsement as an Elementary Reading Teacher or a Secondary Reading Teacher. Students seeking this endorsement must have three letters of recommendations and evaluations by the School for the Study of Teaching and Teacher Education for admission and a Reading Program application. Students must meet with their assigned advisor to plan their program of study after formal notification of admission. Students seeking endorsement must provide evidence of two or more years of teaching experience in an accredited and/or established elementary or secondary school while holding a Type A or teaching license equivalent certificate before such recommendation will be made. Supervised practicum experiences and research are arranged by the Reading Center. Students must also complete a four hour written comprehensive examination.

Reading Elementary

Students who are not licensed in elementary education must have evaluations by the School for the Study of Teaching and Teacher Education. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program (ET 503 is a recommended course. This may increase the minimum hours to 37.) Students who desire the Elementary Reading Teacher Endorsement should note the specified courses.

Required Reading Credits, Elementary — 10 semester hours

<i>*Required for Elementary Teacher Endorsement</i>	
<i>**Only 3 hours of 500-level EDRD courses will apply toward degree.</i>	
*EDRD 612 Reading in the Elementary School	3
*EDRD 645 Reading/Literacy Research	3
EDRD 601 Practicum in Literacy	1-3
or	
*EDRD 692 Clinical Practicum and Internship: Elementary/Middle/Secondary	4

Electives in Reading and Language Arts — 9 semester hours

**EDRD 508 Reading Workshop	1-3
**EDRD 515 Current Trends and Issues in Reading/Language Education	3
**EDRD 519 Reading and Writing Development of Preschool/ Primary Children	2
*EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 615 Topical Seminar in Literacy Education	3
*EDRD 617 Evaluation and Improvement of Reading and Related Abilities	3
EDRD 620 Reading in the Middle and Secondary School	3
EDRD 621 Critical Reading and Thinking in Content Subjects	3
EDRD 642 Teaching the Writing Process in Schools	3
EDRD 670 Directing a School-Wide Reading/Writing Program	3
(EDRD 670 is strongly recommended for the Endorsement of the Reading Teacher.)	
EDRD 694 Reading Center Internship: College Reading, Literacy, Supervision	2
EDEL 640 Researched Applications for Instruction in the English Language Arts K-9	3

Required Professional Credits — 6 semester hours

SRM 600 Introduction to Graduate Research	3
*EDEL 619 Pluralism in Education	3

General Electives — 9 semester hours

General electives must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. There must be a link among the elective courses in accord with the student's career plans in reading. Prefixes of suggested related fields are EDAD, EDEC, EDEL, EDSE,

ENG/EED, EPSY, ET, MATH/MED, PPSY, PSY, SPAN and COMM. For students applying for the Elementary Reading Teacher Endorsement, electives must be taken in at least one supporting area, such as tests and measurements, special education, child and adolescent development, speech and hearing, guidance and counseling, language development, curriculum, multicultural/multilingual, and writing/English.

Reading Secondary

Students who are not licensed in secondary education must have evaluations by the College of Education and by the School for the Study of Teaching and Teacher Education. Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program. (ET 503 is a recommended course. This may increase the minimum hours to 37.) Students who desire the Secondary Teacher Endorsement should note the specified courses.

Required Reading Credits, Secondary — 10 semester hours

<i>*Required for Elementary Teacher Endorsement</i>	
<i>**Only 3 hours of 500-level EDRD courses will apply toward degree.</i>	
*EDRD 620 Reading in the Middle and Secondary School	3
*EDRD 645 Reading/Literacy Research	3
EDRD 601 Practicum in Literacy (can be repeated)	4
or	
*EDRD 692 Clinical Practicum and Internship: Elementary/ Secondary	4

Electives in Reading and Language Arts — 9 semester hours

**EDRD 508 Reading Workshop	1-3
**EDRD 515 Current Trends and Issues in Reading/Language Education	3
EDRD 612 Reading in Elementary School	3
*EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 615 Topical Seminar in Literacy Education	3
*EDRD 617 Evaluation and Improvement of Reading and Related Abilities	3
EDRD 621 Critical Reading and Thinking in Content Subjects	3
EDRD 642 Teaching the Writing Process in Schools	3
EDRD 670 Directing a School-Wide Reading/Writing Program	3
(EDRD 670 is strongly recommended for the Endorsement of the Reading Teacher)	
EDEL 645 Researched Applications for Instruction in the English Language Arts K-9	3

Required Professional Credits — 6 semester hours

SRM 600 Introduction to Graduate Research	3
*EDEL 619 Pluralism in Education	3

General Electives — 9 semester hours

General electives must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. There must be a link among the elective courses in accord with the student's career plans in reading. Prefixes of suggested related fields are EDAD, EDEC, EDEL, EDSE, ENG/EED, EPSY, ET, MATH/MED, PPSY, PSY, SPAN and COMM. For students applying for the Secondary Reading Teacher Endorsement, electives must be taken in at least three supporting areas, such as: adolescent literature, tests and measurements, special education, adolescent development, speech and hearing, guidance and counseling, language development, curriculum, multicultural/multilingual, and writing/English.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Doctor of Education in Reading

Program Requirements

- Complete the required credits specified here51**
- Complete program electives specified here 15**
- Must apply through the Graduate School**

The Ed.D. in Reading prepares a student for positions in public and private schools as reading coordinator or other leadership roles, in colleges or universities, in the educational publishing industry, in research and development companies, in businesses, in government entities and in many other literacy-related professions.

Graduate applicants for this degree must have three letters of recommendation and complete the Reading Program application form as well as the Graduate School application. They must have evaluations by the School for the Study of Teaching and Teacher Education; and the Graduate School to determine admissibility. Applicants must provide evidence of two or more years of teaching experience in an accredited public or private school.

Students will be required to demonstrate appropriate literacy and competency in computer applications as part of this program (ET 503 is a recommended course). All elective courses in the Ed.D. in Reading program must be selected in consultation with the advisor and approved in advance, in writing, by the major advisor. There must be a link among the elective courses in accord with the student's career path in reading.

Students who hold an endorsement as Reading Teacher: Elementary or Secondary and who are seeking a Reading Specialist K-12 endorsement, must secure endorsement at the alternative level by completing course requirements at the level alternate to the existing endorsement and an advanced supervised practicum as a reading specialist.

Required Credits in Reading — 30 semester hours

- EDRD 712 Psychology of Reading3
- Take at least two seminars (EDRD 745 and/or EDEL 745)
- EDRD 745 Topical Seminar in Reading (can be repeated)2-4
- EDEL 745 Seminar in Elementary English2
- EDRD 795 Supervised Practicum in College Teaching3
- or
- EDRD 701 Advanced Practicum in Literacy3
- EDRD 797 Doctoral Proposal Research1-4
- EDRD 799 Doctoral Dissertation1-2
- Electives in Reading at 600-700-level to complete 30 semester hours (EDRD 717, EDRD 671, EDRD 701 or EDRD 694 required for Reading Specialist Endorsement.)

Required Research/Inquiry Credits — 12 semester hours

- SRM 602 Statistical Methods I3
- SRM 603 Statistical Methods II3
- SRM 680 Qualitative Research Methods3
- or
- SRM 670 Evaluation: Models and Designs3
- SRM 700 Advanced Research Methods1

Required Professional Development Credits — 9 semester hours

Choose from the following:

- EDEL 612 The Elementary School Curriculum3
- EDEL 678 Outcomes-Based Education3
- EDEL 679 Researched Application in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School3
- EDF 640 Psychological Foundations of Education3
- EDF 665 Sociological Foundations of Education3
- EDF 667 Modern Curriculum Trends and Issues2
- EDF 685 Philosophical Foundations of Education3
- EDMS 665 Middle School Theory, Philosophy and Curriculum3
- EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum3
- EDRD 750 The Contributing Professional in Reading3
- EPSY 630 Child and Adolescent Psychology3

General Electives — 15 semester hours

Students choose electives with major advisor's written approval.

Notes

Students applying for the Reading Specialist Endorsement must consult with their advisor to be certain they meet all qualifications.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education Emphasis in Early Childhood Special Education

Program Requirements
Complete the required credits specified here42-51

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with infants and young children (birth to 5) with special needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 42-51 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Early Childhood/Special Education

EDSE 530 Parent/Professional Partnerships	3
EDSE 531 Assessment of Infants and Young Children with Special Needs	3
EDSE 532 Early Intervention for Infants and Toddlers with Special Needs	3
EDSE 533 Methods in Early Childhood Special Education	3
EDSE 534 Research and Policy In Early Childhood Special Education	3
EDEC 660 Critical Issues in Early Childhood Education	3
EDEC 675 Play and Psychosocial Development in Early Childhood	3

Graduate Study

SRM 600 Introduction to Graduate Research	3
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Practicum

EDSE 535 Practicum in Early Childhood Special Education	3-12
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Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching handicapped infants and adults. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher IV Early Childhood Special Education. Students who seek a Colorado endorsement in the Special Education Teacher IV Early Childhood Special Education Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education Emphasis in Moderate Needs

Program Requirements

Complete the required credits specified here36-45
Complete the elective credits specified4

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview. The student must have completed one year teaching experience or equivalent.

Students who seek a Colorado endorsement in the Special Education Teacher I Moderate Needs Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements.

This master's program is designed to prepare teachers who will work with students who have moderate needs. Typically, the duration of this program should be two semesters. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education and additional courses addressing competencies in the scope and sequence of regular education curriculum and methodology (EDEL 612: The Elementary School Curriculum — 3 semester hours; EDEL 620: Researched Applications for Instruction in Mathematics K-9 — 3 semester hours; EDRD 612: Reading in the Elementary School — 3 semester hours). Students not endorsed in Elementary Education and/or Early Childhood Education are also required to take EDEL 612, EDEL 620 and EDRD 612. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Required Credits — 36-45 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3

EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3
<i>Special Education Moderate Needs</i>	
EDSE 601 Supporting Special Needs Students in the Mainstream	3
EDSE 606 Instructional Methods for Students with Special Needs	3
EDSE 608 Case Studies with Students with Special Needs	3
EDSE 609 Language Development: Disorders of Individuals with Special Needs	3
<i>Graduate Study</i>	
SRM 600 Introduction to Graduate Research	3
<i>Practicum with Students with Moderate Needs</i>	
EDSE 603 Practicum with Moderately Handicapped Students	3-12

Elective Credits — 4 semester hours

EDRD 617 Evaluation and Improvement of Reading and Related Abilities	4
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Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation and exit requirements will be based on multiple criteria such as: faculty interview, professional recommendations, successful completion of the comprehensive examination, recommendations of the advisor or other program faculty, academic ethics and potential for teaching students with moderate needs. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher I Moderate Needs. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Master of Arts in Special Education Emphasis in Profound Needs

Program Requirements

Complete the required credits specified here42-51

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and arrange for a personal interview.

This master's program is designed to prepare teachers who will work with profound needs students. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete course requirements listed under Professional Teacher Education. The program consists of the required additional (separate) admission requirements and courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 42-51 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Profound Needs

EDSE 520 Survey of Learners with Profound Needs	3
EDSE 521 Assessment of Learners with Profound Needs	3

EDSE 522 Methods of Teaching Learners with Profound Needs, Birth to 8 Years	3
EDSE 523 Methods of Teaching Learners with Profound Needs, 9 to Adult	5
EDSE 524 Seminar in Education of Learners with Profound Needs	3
EDSE 525 Research and Policy for Learners with Profound Needs	3
<i>Graduate Study</i>	
SRM 600 Introduction to Graduate Research	3
<i>Practicum</i>	
EDSE 526 Practicum with the Severely/Profoundly Handicapped	3-12

Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as: faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching students with profound needs. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher III Profound Needs. Students who seek a Colorado endorsement in the Special Education Teacher III Profound Needs Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Master of Arts in Special Education Emphasis in Severe Needs: Affective

Program Requirements

Complete the required credits specified here39-48

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with students with affective needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 39-48 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Affective Needs

EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention	3
EDSE 606 Instructional Methods for Students with Special Needs	3
EDSE 608 Case Studies with Students with Special Needs	3
EDSE 610 Interventions for Students with Severe Affective Needs	3
EDSE 611 Seminar in Severe Affective Needs	3

Graduate Study

SRM 600 Introduction to Graduate Research	3
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Practicum

EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21,	3-12
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Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching behaviorally disordered students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Affective. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Affective Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education Emphasis in Severe Needs: Cognitive

Program Requirements
Complete the required credits specified here42-48

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with students with cognitive needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 42-48 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learner with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Cognitive Needs

EDSE 606 Instructional Methods for Students with Special Needs	3
EDSE 608 Case Studies with Students with Special Needs	3
EDSE 609 Language Development: Disorders of Individuals with Special Needs	3

Master of Arts in Special Education Emphasis in Severe Needs: Communication

Program Requirements
Complete the required credits specified here42-48

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and professional goals in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with students with communication needs. Typically, the duration of this program should be two semesters plus a summer session. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 42-48 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Communication Needs

CMDS 683 Advanced Topics in Language Disorders	3
EDSE 606 Instructional Methods for Student with Special Needs	3
EDSE 608 Case Studies with Students with Special Needs	3
EDSE 609 Language Development: Disorders of Individuals with Special Needs	3
EDSE 630 Seminar in Severe Needs Communication	3

EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs	3
EDSE 621 Seminar in Severe Cognitive Needs	3
<i>Graduate Study</i>	
SRM 600 Introduction to Graduate Research	3
<i>Practicum (6 hours minimum required)</i>	
EDSE 623 Practicum with Severe Cognitive Needs, Ages 5-21	3-12
EDSE 624 Practicum with Severe Cognitive Needs, Ages 5-12	3-12
EDSE 625 Practicum with Severe Cognitive Needs, Ages 13-21	3-12

Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching mentally retarded students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Cognitive. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Cognitive Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester-hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Graduate Study

SRM 600 Introduction to Graduate Research	3
<i>Practicum (6 hours minimum required)</i>	
EDSE 631 Practicum with Severe Communication Needs, Ages 5-21	3-12
EDSE 632 Practicum with Learning Disabled Students, Ages 5-12	1-12
EDSE 633 Practicum with Learning Disabled Students, Ages 13-21	1-12

Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching learning disabled students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Communication. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Communication Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education Emphasis in Severe Needs: Hearing

Program Requirements

Complete the prerequisite credits specified here	14
Complete the required credits specified here	50-59

Admission

In addition to meeting the admission requirements of the Graduate School, the student must complete the following and submit them to the Director of Special Education at the time of application to the Graduate School: 1) a letter of Intent stating future goals as a teacher of the hearing impaired; and 2) two letters of recommendation from faculty in major area of study in undergraduate program. In addition, a personal interview must be scheduled.

This program is designed to prepare teachers of students who are deaf or hard of hearing. Typically, the duration of this program should be four semesters. However, if a student enters the master of arts program in special education without a teacher licensure, he or she is required to complete additional (separate) admission requirements and course requirements listed under the Professional Teacher Education and additional courses addressing competencies in the scope and sequence of regular education curriculum and methodology. (EDEL 612: The Elementary School Curriculum — 3 credit hours; EDEL 620: Researched Applications for Instruction in Mathematics K-9 — 3 credit hours; EDRD 612: Reading in the Elementary School—3 credit hours). Students not endorsed in Elementary Education, Secondary Education, or Early Childhood Education also are required to take EDEL 612, EDEL 620, and EDRD 612. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. This program meets the standards of the Colorado State Department of Education and the Council on Education of the Deaf.

Prerequisites — 14 semester hours

CMDS 266 Normal Speech and Language Development	3
CMDS 370 Basic Audiology	4
EDSE 450 Introduction to Hearing Impaired	3
EDSE 451 Basic Sign Language	4

Required Credits — 50-59 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Severe Needs: Hearing

EDSE 551 American Sign Language	4
EDSE 552 Advanced Sign Language	4
EDSE 652 Speechreading, Auditory Training and Amplification	3
EDSE 653 Speech, Severe Needs: Hearing	3
EDSE 654 Language, Severe Needs: Hearing	3
EDSE 655 Reading, Severe Needs: Hearing	3
EDSE 656 Methods of Teaching Content, Severe Needs: Hearing	3
EDSE 659 Seminar in Education of the Hearing Impaired	3

Graduate Study

SRM 600 Introduction to Graduate Research	3
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Practicum

EDSE 657 Practicum, Severe Needs: Hearing	6-12
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Notes

Retention/Exit Requirements: 1) maintain a 3.0 GPA for retention in the UNC Graduate School and the Severe Needs: Hearing Program; 2) satisfactorily complete the written comprehensive examination; 3) satisfactorily complete a sign language proficiency test which will be administered before each student's practicum placement; and at the end of each semester in the program the student's progress is evaluated by the Severe Needs: Hearing Faculty Committee. This committee reserves the right to place on probation or require withdrawal from the program, any student who, in their professional judgment, fails to satisfy requirements of scholarship, performance, or personal suitability.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Hearing. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Hearing Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education

Emphasis in Severe Needs: Vision

Program Requirements

Complete the required credits specified here50-65

Admission

In addition to meeting the admission requirements of the Graduate School, the student must possess a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale, provide a minimum of two letters of recommendation from previous employers or academic professors, provide a statement of philosophy and goals of application in relation to the needs in the field and, if possible, arrange for a personal interview.

This master's program is designed to prepare teachers who will work with visually handicapped students. Typically, the duration of this program should be three semesters. However, if a student enters the master of arts program in special education without a current teacher licensure, she or he is required to complete additional (separate) admission requirements and course requirements listed under Professional Teacher Education. The program consists of the required courses and practicum requirements agreed upon by the student and advisor. Students with licensure from a state other than Colorado may be required to take additional coursework to meet Colorado Professional Teacher Education standards. Provided some prior coursework has been completed in VH, students may complete licensure and degree requirements in a minimum of 47 semester hours if they desire endorsement in education of visually handicapped only. A total of 62 semester hours are required to complete requirements in both visually handicapped and orientation and mobility if no prior coursework in VH has been completed. It is preferable for students to enroll fall semester.

Required Credits — 47-62 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 504 Transition Planning and Service Delivery for Students with Special Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Severe Needs: Vision

EDEL 612 Elementary School Curriculum	3
EDSE 540 Independent Living for Individuals with Visual Handicaps	1-2
EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities	3
EDSE 543 Braille Codes and Formats	1-3
EDSE 544 Technology for Students with Visual Handicaps	2
EDSE 546 Principles of Orientation and Mobility	2
EDSE 641 Medical and Educational Implications of Visual Handicaps	1-3
EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps	3
EDSE 643 Psychosocial Needs of Individuals with Visual Handicaps	2

Graduate Study

SRM 600 Introduction to Graduate Research	3
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Practicum

EDSE 644 Practicum in Education of Students with Visual Handicaps, K-12.	2-12
Association for Education and Rehabilitation of Blind and Visually Impaired (AERBVI) Licensure: Orientation and Mobility	
EDSE 547 Independence in Orientation and Mobility	4
EDSE 647 Applied Methods in Orientation and Mobility	2
EDSE 648 Practicum in Orientation and Mobility	9

Note that students earning licensure in O & M through AERBVI must complete the above coursework in addition to the VH program requirements. Before enrolling in any mobility coursework, students must obtain program faculty consent.

Association for Education and Rehabilitation of Blind and Visually Impaired (AERBVI) Licensure: Rehabilitation Teaching

EDSE 549 Rehabilitative Teaching of the Visually Handicapped	3
EDSE 646 Practicum in Rehabilitative Teaching of Individuals with Visual Handicaps, K-12	6-12

Note that students earning licensure in rehabilitative teaching through AERBVI must complete the above program with faculty consent. This can be combined with Orientation and Mobility.

Notes

Evaluation of the student's professional potential will be an ongoing process throughout the program. Continuation/exit requirements will be based on multiple criteria such as faculty interview, professional recommendations, recommendations of the advisor or other program faculty, academic ethics, successful completion of the comprehensive examination and potential for teaching visually handicapped students. The multiple criteria approach does not assume that each of these factors carry equal weights; any one factor might well outweigh all others.

A master's degree or a department approved licensure program is required before the University of Northern Colorado will recommend the student for endorsement in Teacher II Severe Needs: Vision. Students who seek a Colorado endorsement in the Special Education Teacher II Severe Needs: Vision Program or request an institutional recommendation for licensure from UNC must meet Colorado licensure requirements. Students entering the licensure program must meet the same entrance requirements as the Master's degree students. They must also demonstrate achievement of all program standards through a combination of UNC coursework, prior coursework, or other departmentally approved documentation and completion of a licensure examination. However, a minimum of 15 semester hours must be taken at UNC.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Master of Arts in Special Education Emphasis in Teaching the Gifted and Talented

Program Requirements

Complete the required credits specified here38-44
Complete the program elective credits specified here3-12

In addition to meeting the admission requirements of the Graduate School, the student must possess a current teaching certificate, must have at least two years teaching experience and must have a grade point average from the baccalaureate degree of at least 3.0 on a 4.0 scale. Three written references from the most recent or current employer or immediate supervisor must be submitted along with a goal statement of educational plans. A personal interview may be required. Acceptance or rejection of an applicant will be made after an evaluation of all of the above requirements is made.

This master's program is designed to train teachers on the elementary and secondary levels to work with gifted and talented students in order to help them develop to their full potential. Typically, the duration of this program should be two semesters plus a summer session for participation in the Summer Enrichment Program. The program consists of the required courses and practicum requirements agreed upon by the student and advisor.

Required Credits — 38-44 semester hours

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	

Gifted and Talented Program Courses

EDSE 580 Nature and Needs of the Gifted and Talented	3
EDSE 581 Teaching Strategies for the Gifted and Talented	3
EDSE 582 Curriculum Models for the Gifted and Talented	3
EDSE 583 History, Organization and Administration of Programs for the Gifted and Talented,	3
EDSE 586 Trends, Issues and Thinking Skills in Gifted Education	2
PPSY 627 Counseling Interventions and Techniques for Talented and Gifted Students	3

Graduate School Requirements

SRM 600 Introduction to Graduate Research	3
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Practicum

EDSE 584 Practicum In Teaching the Gifted and Talented	6-12
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Note that a minimum of 6 hours are required during the Summer Enrichment Program. The maximum for the M.A. program is 12 hours.

Elective Credits — 3-12 semester hours

Electives will be selected with the approval of the major advisor.

Note

In addition to admission to the program and satisfactory completion of all coursework, each student must pass a written comprehensive examination as well as an oral examination before she or he is allowed to graduate.

Doctor of Education in Special Education

Program Requirements

Complete the required credits specified here	76
Complete elective credits specified here	9

The Ed.D. in Special Education is a flexible doctoral program with provisions for individual planning to prepare special education professionals for positions of leadership in public and private schools and for colleges, universities, agencies, businesses and government entities. Major emphases are internally flexible and may be established to fit a variety of interests in the field of special education. Graduates develop leadership knowledge and skills in special education related to five major themes: theory, effective teaching, inquiry, scholarly production and intra-interpersonal skills. The program is designed to prepare students for creative leadership in a rapidly changing world that is experiencing increasing cultural diversity, curriculum and structural reforms in schools and pedagogical innovations across the educational spectrum.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must receive a positive recommendation by the Division of Special Education Doctoral Admissions and Review Committee. When a prospective student has met general University requirements for admission, his or her application is submitted to the Division of Special Education for evaluation. The Division requires submission of 1) a resume, 2) a written statement of academic and professional goals, 3) three letters of recommendation and 4) a published or professional writing sample. A personal interview with members of the faculty is also required.

The Committee reviews each application for admission to determine evidence of 1) potential for scholarship, 2) relevant formal training at the undergraduate and/or graduate level, 3) evidence of successful teaching or clinical experience with persons who have exceptionalities for a minimum of two years, 4) potential for leadership, 5) professional commitment, 6) clarity and rationality of professional and personal goals, 7) potential for effective teaching and 8) potential for conceptualization of and reporting research. Each applicant must receive a positive recommendation from a majority of the Doctoral Admissions and Review Committee members to be recommended for admission to the Graduate School.

The philosophy of the doctoral program is based on the concept that learning is an active, self-regulated process. Therefore, doctoral programs are individually tailored through interactive planning that involves the student, the advisor, the doctoral committee, other students and people from outside the university. Students are expected to enter the program with a clear sense of personal direction and a set of learning goals. In this context, a personalized program is developed in which the focus is on finding innovative and flexible ways to meet the needs of each student while insuring that the student develops advanced skills and knowledge. The overall goal of each student's program is to develop leadership abilities in five major themes in relation to special education, namely: theory, effective teaching, inquiry, scholarly production and intra/interpersonal skills.

Upon admission to the doctoral program, each student will be assigned an advisor. In consultation with this advisor, he or she should determine courses for the first semester. In joint planning sessions the student and advisor — in consultation with the doctoral committee, other students and people from outside the university — should establish a tentative doctoral program during the first and second semesters on campus. This program should be based on past experience and training and on student interests and goals. The program must include an emphasis on critical thinking, breadth and depth of theoretical understanding, apprenticeships that lead to scholarly production before completion of the program, methods of inquiry in education and direct experiences in schools with diverse population. The program plan must include a statement of goals and rationale for proposed coursework and educational experiences. The program and rationale must then be submitted to the Division of Special Education Doctoral Admissions and Review Committee for approval. If the Committee is concerned with elements of the plan, they will make recommendations for revisions or additions. Enrollment in third semester courses without an approved program may lead to the inclusion of courses not ultimately approved as part of the doctoral plan.

Required Credits — 76 semester hours

Note that students will be required to demonstrate literacy and competency in computer applications as part of the program.

Doctoral Core Courses — 26 semester hours

EDSE 720 Professional Development	1
EDSE 721 Theoretical Foundations of Special Education I	3
EDSE 722 Theoretical Foundations of Special Education II	3
EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education I	3
EDSE 724 Seminar in Facilitating Personal and Professional Development in Special Education II	3
EDSE 725 Professional Readings in Special Education	4
EDSE 726 Seminar in Low Prevalence Exceptionalities	3
EDSE 727 Seminar in High Prevalence Exceptionalities	3
EDSE 728 Seminar in Professional Writing	3

Apprenticeships — 12 semester hours

Apprenticeships are typically taken in two hour blocks, beginning with the first semester on campus. Variable titles related to inquiry, university teaching and administration are selected based on the nature of the apprenticeship.

EDSE 729 Apprenticeship in Special Education	12
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Externships — 4 semester hours (minimum)

Externships are taken in one to twelve hour blocks and involve an off-campus experience. Variable titles related to inquiry, university teaching and administration are selected based on the nature of the externship.

EDSE 730 Externship in Special Education	4
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Topical Seminars — 9 semester hours (minimum)

Topical seminars are offered as three hour courses. A minimum of three topical seminars are required.

EDSE 731 Topical Seminar in Special Education	9
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Methods of Inquiry Courses — 9 semester hours

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
SRM 700 Advanced Research Methods	3

Doctoral Proposal and Dissertation — 16 semester hours

EDSE 797 Doctoral Proposal Research	4
EDSE 799 Doctoral Dissertation	12

Elective Credits — 9 semester hours (minimum)

Students are to select 9 semester hours of courses from outside of the Division of Special Education. Electives are chosen in consultation with the major advisor and are an integral part of the program plan.

Areas of Special Interest

The student may select an area of interest (one or more), in conference with his or her advisor, from the following areas: Vocational preparation of children and youth with exceptionalities; education of preschool children with exceptionalities; emphasis in one of the categorical areas of special education (acoustically handicapped, autism, learning disabilities, emotionally disturbed, gifted, mental retardation, visually handicapped, etc.); education of minority, ethnic and cultural groups, curriculum development, appraisal/interpretational/pupil program prescription; programming and management; special education administration; university teaching; research; other areas as designed by the student and his or her advisor.

Notes

Candidates for the doctorate at the University of Northern Colorado must meet all requirements of the Graduate School. It is the responsibility of the student to make certain that these requirements are met, in addition to specific requirements outlined in the preceding sections.

The student is expected to engage in knowledge generating processes from the first semester of residency under the direction of a research advisor within the Division of Special Education. This work is expected to continue throughout the program and to culminate in scholarly productions such as publications and professional presentations.

Elementary Education and Middle School Education Endorsement in Bilingual Bicultural Education

Endorsement Requirements

Total credits required for this endorsement18

Courses for a Bilingual Bicultural Education Endorsement will be provided by the Department of Hispanic Studies to Elementary Education and Middle School Education students who wish to be licensed to teach in elementary (K-6) and middle school (5-9) Bilingual Bicultural Education programs. Courses are provided in Spanish language skills, culture of the Southwest and of Hispanics in the United States, methodology, language skill assessment theory and practice. For elementary education, this program can be combined with a major in other Arts and Sciences subjects or realized within our Spanish major. For middle school, this program can be combined with an approved major for middle school.

Requirements

Students must have completed the Intermediate Spanish courses and 300-level skill-building courses or equivalent before enrolling in SPAN 411 and 412.

Required Credits — 18 semester hours

Select one of the following:

- HISP 101 Introduction to Mexican American Studies3
or
HISP 102 Hispanic Cultures in the United States3

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education	3
HISP 400 Methods and Assessment for Bilingual Education and ESL	3
SPAN 411 Spanish for Bilingual Education I	3
SPAN 412 Spanish for Bilingual Education II	3
<i>Select one of the following:</i>	
ANT 210 Field Methods in Cultural Anthropology	3
or	
SPCO 323 Intercultural Communication	3

Note

Students must pass the Hispanic Studies Department's oral proficiency interview in Spanish at the intermediate level before being allowed to enter student teaching. Students who have not completed SPAN 101-102-201 or 202 or who have not completed, as a minimum, 3 years of high school Spanish or are a native speaker may have to complete additional Spanish courses to meet requirements.

Graduate Endorsement in Bilingual Bicultural Education

Elementary and Middle School Education required total credits18
Secondary Education required total credits21

This graduate level endorsement program in Bilingual Bicultural Education emphasizes the study of the structures of English and Spanish, second language acquisition, and methodology related to teaching in a dual language classroom. This program leads to recommendation to Colorado's Linguistically Diverse: Bilingual Education endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

Elementary and Middle School Education Required Credits — 18 Semester Hours

EDEL 619 Pluralism in Education	3
EDLD 602 Teaching Linguistically Diverse Learners	3

EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
SPAN 514 Contrastive Features of Spanish and English	3
SPAN 555 Spanish Readings	3

Secondary Education Required Credits — 21 Semester Hours

EDEL 619 Pluralism in Education	3
EDLD 602 Teaching Linguistically Diverse Learners	3
EDLD 603 Methods and Assessments for ESL and Bilingual Education	3
EDLD 604 Field Experience in TESOL and Bilingual Education	3
EDRD 620 Reading in the Middle and Secondary School	3
SPAN 514 Contrastive Features of Spanish and English	3
SPAN 555 Spanish Readings	3

Note

Students are required to take the Spanish Oral Proficiency Exam (OPE). Additional language courses may be required if they do not pass the OPE.

Elementary Education and Middle School Education Endorsement in Teaching English as a Second Language

Endorsement Requirements

Total credits required for this endorsement20

This endorsement program in Teaching English as a Second Language (ESL) provides the student with the study of the structures of English and with the theory and practice related to the teaching of English as a second language. Students successfully completing this program will be recommended for the Linguistically Diverse: English as a Second Language endorsement in Elementary or Middle grades. This program must be completed in conjunction with the Elementary Education or Middle School Licensure Program.

Required Credits — 20 semester hours

ENG 219 Traditional and Modern Grammars	3
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ENG 419 Languages and the History of English	3
HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education	3
MCS 101 Multiculturalism in the U.S.: Concepts and Issues	3
SPCO 323 Intercultural Communication	3
TESL 301 TESL Practicum I	2
TESL 400 Methods and Approaches of ESL/EFL	3

Note

Students must complete a second language requirement equivalent to one year of college-level studies.

Graduate Endorsement in Teaching English as a Second Language

Elementary and Middle School Education required total credits18
Secondary Education required total credits21

This graduate level endorsement program in the teaching of English as a Second Language (ESL) emphasizes the study of the structures of English, second language acquisition, and methodology related to the teaching of English to speakers of other languages. This program leads to recommendation to Colorado's Linguistically Diverse: ESL endorsement. The Elementary and Middle School Education Program must be completed in conjunction with, or after the completion of the Elementary or Middle School Licensure Program. The Secondary Education Program must be completed in conjunction with, or after the completion of a Secondary Teacher Preparation Program.

Elementary and Middle School Education Required Credits — 18 Semester Hours

EDEL 619 Pluralism in Education3
 EDLD 602 Teaching Linguistically Diverse Learners3

EDLD 603 Methods and Assessments for ESL and Bilingual Education3
 EDLD 604 Field Experience in TESOL and Bilingual Education3
 ENG 633 Studies in Linguistics3
 HISP 508 Teaching the Mexican American Student3

Secondary Education Required Credits — 21 Semester Hours

EDEL 619 Pluralism in Education3
 EDLD 602 Teaching Linguistically Diverse Learners3
 EDLD 603 Methods and Assessments for ESL and Bilingual Education3
 EDLD 604 Field Experience in TESOL and Bilingual Education3
 EDRD 620 Reading in the Middle and Secondary School3
 ENG 633 Studies in Linguistics3
 HISP 508 Teaching the Mexican American Student3

Note

Students must show evidence of familiarity with a second language.

Post-Baccalaureate Licensure Programs

Due to a major review and revision process, students making application to the following post-baccalaureate licensure programs are requested to contact the School for the Study of Teaching and Teacher Education, McKee 213 to obtain detailed information concerning the structure and requirements leading to Colorado initial teacher licensure. These are licensing programs for students

who already have a Bachelors degree from an accredited institution of higher education.

- Elementary Education
- Middle Grades Education
- Secondary Education

Post-Baccalaureate Licensure in Early Childhood Education

Program Requirements

Complete the required credits specified here18-22
Must apply through the Graduate School

Prerequisites

A completed baccalaureate degree in liberal arts, humanities, sciences, mathematics, social sciences, health or equivalent to those listed in this catalog. (Students without a liberal arts degree will have their transcripts evaluated for liberal arts content.)

Hold or be eligible for a Type A Colorado Teaching Certificate, endorsed Elementary Education.

Completion of a minimum of one course in human growth and development or its equivalent.

Demonstrate appropriate literacy and competency in computer applications. ET 503 or the equivalent may be used to meet this requirement.

Required Credits — 18-22 semester hours

EDRD 519 Reading/Writing Development of Preschool/Primary Children2
 or
 EDEC 648 Psycholinguistics in Early Childhood3

EDEC 539 Parent Education and Involvement in Early Childhood/Primary3
 EDEC 660 Critical Issues in Early Childhood and Primary Education3
 EDEC 664 Seminar in Early Childhood and Primary Education3
 EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education3
 EDEC 675 Play and Psychosocial Development in Early Childhood3
 EDEC 601 Practicum in Early Childhood1-4

Notes

This is not an initial endorsement program.

Two levels of field experience/practicum (or equivalent) are necessary to meet the endorsement requirements. Placement with preschool aged children and K-2 level children is required.

Applicants must have an overall 3.0 GPA on last 100 quarter hours/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants under probation must attain a 3.0 GPA on the first 9 semester hours completed in this program.

Post Master's Licensure Program in Special Education Administration

Program Requirements

Complete the required credits specified here38-48

Admission

The Special Education Administration Endorsement Program is designed to prepare students to become special education administrators. The endorsement is a post-master's licensure and all students must have completed a master's degree at an accredited institution. Students are admitted to the program if they meet the admission requirements of the Graduate School, are teacher licensed and have completed three years of successful teaching experience or its equivalent. In addition to the admission requirements, a student must hold or be eligible for Colorado licensure as Special Education Teacher I: Moderate Needs or the equivalent.

The course of study is a highly individualized program based on the background of the student and is designed to provide broad knowledge base for all areas of special education. Depending upon the licensure of the student, a program is designed to provide an in-depth knowledge of the field of special education, emphasizing the wide variety of needs of special children with regard to delivery systems, evaluation, programming, identification, finance, law and due process.

Required Credits — 38-48 semester hours

Licensure in Reading Reading Teacher Endorsements

Program Requirements

Elementary (K-6)32

Secondary (7-12)32

Must apply through the Graduate School

Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure officer. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Applicants should be prepared to present evidence of course appropriateness (e.g., a catalog and course syllabus) to address questions regarding the content, scope and/or focus of a course completed at another university.

To be successfully endorsed as Reading Teacher (Elementary or Secondary), an applicant must meet the following requirements:

- Have three letters of recommendation and evaluation by the School for the Study of Teaching and Teacher Education.
- Have successfully completed two or more years of teaching experience in an accredited and/or established elementary or secondary school (at the level of application) while holding a Type A or equivalent certificate.
- Have successfully completed an approved 5th year graduate program in an accepted institution of higher education.
- Have completed the following course requirements with a letter grade of "B" or better.

Elementary Reading Teacher Endorsement Course Requirements

EDRD 612 Reading in the Elementary School	3
EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 617 Evaluation and Improvement of Reading and Related Abilities	4
EDRD 645 Reading/Literacy Research	3
EDRD 692 Clinical Practicum and Internship: Elementary	4
EDEL 619 Pluralism in Education	3
*One elective course in reading (see advising sheet)	3
**Three elective courses outside of reading in a least one supporting area	9

*EDRD 670 Directing A School Wide Reading/Writing Program (3) or EDRD 642, Teaching the Writing Process in School (3) are the recommended courses for an elective.

**Elective courses outside of reading must be approved by the advisor from the following areas: Tests and Measurements, Special Education, Child and Adolescent Development, Speech and Hearing, Guidance and Counseling, Language Development, Curriculum, Multicultural/Multilingual, Writing/English.

Special Education Core

EDSE 500 Field of Special Education	3
EDSE 501 The Exceptional Learner	3
EDSE 502 Communication, Collaboration and Consultation for Special Educators	3
EDSE 503 Effective School Environments for Learners with Exceptional Needs	3
EDSE 505 Assessment of Exceptional Individuals	3

Special Education Administration

EDSE 520 Survey of Learners with Profound Needs	3
EDSE 601 Supporting Special Students in the Mainstream	3
EDSE 680 Administration and Supervision of Special Education	3
EDSE 681 Administrative Planning and Program Evaluation in Special Education	3
EDSE 730 Externship in Special Education Administration	1-12
EDSE 718 Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps	3
ELPS 650 School Finance and Budgeting	3
ELPS 660 Law and the Administrator	3

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Secondary Reading Teacher Endorsement Course Requirements

EDRD 614 Literature for Children, Adolescents and Young Adults	3
EDRD 617 Evaluation and Improvement of Reading and Related Abilities	4
EDRD 620 Reading in the Middle and Secondary School	3
EDRD 621 Critical Reading and Thinking in Content Subjects	3
EDRD 645 Reading/Literacy Research	3
EDRD 692 Clinical Practicum and Internship: Secondary	4
EDEL 619 Pluralism in Education	3
*Three elective courses outside of reading in at least one supporting area	9

*Elective courses outside of reading must be approved by the student's advisor. Courses may be elected from the following areas: Tests and Measurements, Special Education, Child and Adolescent Development, Speech and Hearing, Guidance and Counseling, Language Development, Curriculum, Multicultural/Multilingual, Writing/English.

Notes

EDRD 670, Directing A School Wide Reading/Writing Program (3) and EDRD 642, Teaching the Writing Process in Schools (3) are also highly recommended course electives.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

Licensure in Reading

Reading Specialist Endorsement

Program Requirements

Reading Specialist Endorsement Requirements18-27
Must apply through the Graduate School

Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure officer. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Applicants should be prepared to present evidence of course appropriateness (e.g., a catalog and course syllabus) to address questions regarding the content, scope and/or focus of a course completed at another university.

To be successfully endorsed as Reading Specialist, an applicant must meet the following requirements:

- Have three letters of recommendation and evaluation by the School for the Study of Teaching and Teacher Education.
- Have successfully completed an approved 6th year graduate program of studies in reading in an accepted institution of higher education (may be an endorsement program).
- Graduate studies in the teaching of reading to qualify for a K-12 Reading Teacher Endorsement. (An elementary or secondary Reading Teacher shall have completed preparation in reading at the level alternate to the initial reading endorsement.)
- Have completed the following course requirements with a letter grade of "B" or better.

Reading Specialist Endorsement Course Requirements

EDRD 671 Directing a District-Wide Reading/Writing Program	3
EDRD 701 Advanced Practicum in Literacy (must be related to reading specialist's school position)	3
or	
EDRD 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (must be related to supervision)	3

Licensure Program in Special Education

Emphasis in Teaching Students with Profound Needs

Program Requirements

Required Special Education credits39-70 (recommended by advisor)	
Pre-professional Courses (SPCO 100,103)	3
Required PTEP core credits	23
Required Special Education PTEP credits	21
General Education	40
Total credits required for this degree	126-157

This program is designed for students who seek teaching licensure in Special Education: Teaching the Severely/Profoundly Handicapped in addition to their Liberal Arts major.

Its second goal is to prepare for an advanced degree in Special Education. The program fosters the educational professionalism and teaching components that are essential to the education of the severely/profoundly handicapped in school and community.

Required PTEP core credits — 23 semester hours

EDFE 270 Field Based Experiences	2
EPSY 346 Learning and Development for Teachers	2

EDRD 712 Psychology of Reading	3
EDRD 717 Advanced Diagnostic/Instructional Problems in Literacy Development	3
SRM 600 Introduction to Graduate Research (or equivalent)	3
<i>At least one of the following:</i>	
SRM 602 Elements of Statistics	3
SRM 603 Analysis of Variance	3
SRM 610 Statistical Packages for Educational Research	3
SRM 680 Qualitative Research Methods	3
SRM 670 Evaluation: Models and Designs	3
SRM 671 Evaluation: Advanced Methods	3

Notes

EDRD 750, The Contributing Professional in Reading (3) is highly recommended for Reading Specialist Endorsement.

Applicants must have an overall 3.0 GPA on the last 100 quarter/66 semester hours for full admission to this program. Applicants with a GPA between 2.75 and 3.0 may be admitted by the School on a probationary basis. Applicants admitted under probation must attain a 3.0 GPA on the first 9 semester hours completed in the program.

Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information.

EDF 366 Conceptions of Schooling	4
EDRD 425 Reading and Writing in Content Areas	1
EDFE 444 Student Teaching	12
EDSE 410 Exceptional Student in the Regular Classroom	2
ET 201 Technology in Education	1
ET 301 Educational Technology Applications	1

Required Special Education PTEP credits — 21 semester hours

EDSE 300 Foundations and Communication in Special Education	3
EDSE 301 Development and Learning in Exceptional Students	3
EDSE 302 Educational Intervention for Meeting the Needs of Exceptional Individuals	3
EDSE 400 Introduction to Students with Profound Needs	3
EDSE 402 Assessment of Students with Profound Needs	3
EDSE 403 Methods of Teaching Students with Profound Needs, Birth-8	3
EDSE 404 Methods of Teaching the Severely/Profoundly Handicapped, 9-Adulthood	3

Endorsement in School Library Media

Program Requirements

K-12 School Library Media Endorsement	33
K-6 School Library Media Endorsement	30
7-12 School Library Media Endorsement	30

School Library Media Endorsement is available at three levels: K-12, K-6 and 7-12.

The graduate non-degree programs in educational media presently includes the School Library Media Endorsement. This endorsement is required of those who intend to obtain professional level employment in Colorado K-12 school libraries, learning resource centers or media centers.

To be endorsed in School Library Media by the State of Colorado Department of Education, an applicant must meet the following requirements:

- hold a Type A or teaching license (or equivalent) teaching certificate;
- have completed one year of successful teaching experience and/or school media experience while holding a valid Type A or teaching license or equivalent certificate;
- have completed an approved graduate (non-degree) program in Educational Media in an accepted institution of higher education including field experience appropriate for the level of endorsement.

The University of Northern Colorado School Library Media Program has been designed to meet or exceed competency requirements set by the Colorado Department of Education. Students who do not already hold an M.A. degree who are interested in obtaining a School Library Media Endorsement should investigate the M.A. program in Educational Media. The major difference between the M.A. and this program is 6 additional hours.

Endorsements are granted by the Colorado Department of Education upon the recommendation of the University of Northern Colorado Licensure Officer. Students wishing to obtain Colorado licensure in this area are required to pass proficiency examination(s). Students should contact the School for the Study of Teaching and Teacher Education in McKee 216 for information. Courses taken at other accredited institutions within the preceding 10 years may be accepted in lieu of courses taken at UNC. However, these courses will be assessed by the UNC Graduate Evaluator before acceptance. Students should be prepared to present evidence of course appropriateness (e.g., a copy of the course description).

School Library Media Endorsement Course Requirements

ET 502 Instructional Development	3
ET 503 Computer Based Education	3
ET 504 Instructional Materials Design	3
ET 530 Media Cataloging and Classification	3
ET 533 Reference and Information Management	3
ET 535 Administration of Instructional Resources	3
ET 536 Media Selection, Utilization and Evaluation, 3	
SRM 600 Introduction to Graduate Research	3
EDRD 614 Children's and Adolescent Literature	3
EDFE 610 Field Experience (K-6)	3
(required for K-6, K-12 endorsement)	
EDFE 610 Field Experience (7-12)	3
(required for 7-12, K-12 endorsement)	

Administrators' Licensure: District Level Leadership (Non-Degree)

Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

Program Requirements

The Administrator Licensure Program in the Division of Educational Leadership and Policy Studies provides opportunities for candidates to acquire the knowledge and skills needed for the day-to-day demands of the administrative positions that provide leadership for family-school-community efforts to improve education. The program not only provides opportunities for students to develop an in-depth understanding of district office roles and responsibilities, but also develops a breadth of understanding of leadership, policy development, local school governance, and contemporary educational issues.

Entering students who already possess a Master's Degree in Educational Leadership or a Principal License (or equivalent) need a minimum of 17 semester hours of graduate coursework and an internship (4 hours). The Administrator License requires completion of the Leadership Core as a prerequisite for endorsement for the Administrator License. These core learning experiences may be satisfied by equivalent prior learning experiences.

This total 21 credit hour requirement is a minimum expectation for program completion. Required courses, however, may be waived by the Division if a student has taken an equivalent graduate course within the previous eight (8) years or can demonstrate the knowledge and skills for a Colorado Administrator License (see Standards for School Administrators in Colorado).

Required Credits — 21 semester hours (minimum)

ELPS 747 Leadership at the School District Level	3
ELPS 665 Policy Analysis and Development	3
ELPS 650 School Finance and Budgeting	3
or	
ELPS 651 School Business Management	3
ELPS 654 Supervision of Curricular and Instructional Programs	5
SRM 670 Evaluation: Models and Designs	3
or	
EPSY 674 Measurement I: Educational Testing	3
ELPS 606 Internship (minimum 2 hours at central office and 2 hours with other agencies)	4

Admission

Applicants for licensure programs must submit an application form, official transcripts, and processing fee directly to the Graduate School. In addition, an application packet available through the Division Office (418 McKee Hall) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and a Professional Assessment Form. Admission decisions are made throughout the year.

Principals' Licensure (Non-Degree)

Philosophy

The underlying philosophy of programs in Educational Leadership at UNC is that educational leaders possess knowledge of self, others, organizations, learning, and society necessary to perform creatively and effectively in diverse environments. They engage people in identifying and working toward the accomplishment of a shared vision for the organization. Leaders incorporate the ideas, values, and experiences reflective of a pluralistic society and promote continual learning.

The program is exemplified by the following beliefs:

- Human growth and development are lifelong pursuits;
- Organizations are artifacts of a larger society;
- Learning, teaching, and collegiality are fundamental activities of educational organizations;
- Validated knowledge and active inquiry form the basis of practice;
- Moral and ethical imperatives drive leadership behavior;
- Leadership encompasses a learned set of knowledge, skills, and attitudes;
- Effective leadership in educational organizations depends on individual and team efforts;
- Leaders' behavior and actions model their beliefs and values;
- Leaders effect positive change in individuals and organizations.

Program Requirements

The principals' licensure program provides opportunities to acquire knowledge about leadership in P-12 educational settings. The program is designed according to the Standards for Principals through the Colorado Department of Education and State Board of Education. Program requirements include thirty semester hours of coursework including a field experience.

Entering students must possess a bachelor's degree from an accredited college

or university. Students may work concurrently on the principal's license and a master's degree or an Ed.S. degree in educational leadership. To obtain a professional license, students must have a master's degree, complete a principal license program, and satisfactorily pass the PLACE exam. Students must also complete an induction program. Coursework needed to successfully complete the principal's license includes:

Leadership Core — 16 hours

ELPS 601 Leadership Development Through Inquiry	3
ELPS 603 Shaping Organizations	5
ELPS 604 Understanding People	3
ELPS 605 External Environments	5

Additional Requirements — minimum of 14 hours

ELPS 606 Internship	3-9
ELPS 654 Supervision of Curricular and Instructional Programs	5
ELPS 660 Law and the Administrator	3
ELPS 670 The Principalship	3

Admission

Students desiring a principal's license must submit an application to the Graduate School. In addition, an application packet available through the Division Office (418 McKee Hall) describes materials for admission review by the faculty: current resume, goals statement, essay regarding an educational issue, and a Professional Assessment Form. Admission decisions are made throughout the year.

Note

Students must participate in a portfolio presentation and review after completion of the Leadership Core.

Minor in Early Childhood**Program Requirements****Total credits required for this minor18****Required Credits — 18 semester hours**

EDEC 233 The Child Within the Family	3
EDEC 333 Development and Guidance of Young Children (with lab)	3
EDEC 439 Parent/Child/Teacher Relationships	3
EDEC 460 Primary Curriculum and Methods	3
EDEC 462 Classroom Management in Early Childhood	3
EDEC 463 Diagnostic Teaching in Early Childhood	3
<i>Child Care Center Director</i>	
EDEC 231 Development of Infants and Toddlers (with lab)	3
EDEC 334 Preschool/Kindergarten Curriculum and Methods	3
EDEC 437 Administration of Programs for Young Children	3
FND 250 Human Nutrition	3

Notes

Students seeking designation as Director Qualified for Child Care Centers as determined by the State Department of Social Services should consult with an Early Childhood advisor and should be prepared to complete the above courses in addition to the minor.

Students should be aware that some school districts require coursework in Early Childhood for their teachers assigned to Kindergarten and Primary levels. Courses in the Early Childhood minor program are recommended for that purpose.

Students may elect any of the courses in Early Childhood to enhance their elementary program.

Minor in Reading**Program Requirements****Total credits required for this minor20****Required Credits — 3-9 semester hours**

*EDRD 410 Achieving Effective Instruction in Developmental Reading	3
*EDRD 411 Reading Diagnosis and Individualization	3
*EDRD 414 Literature for Children, Adolescents and Young Adults	3
**EDRD 423 Reading and Writing in the Content Area	2

*Elementary Licensure

**Secondary Education Licensure.

Elective Credits — 11-17 semester hours*In addition to above, select courses from below to total 20 semester hours:*

EDRD 308 Reading Workshop	1-10
EDRD 401 Reading Practicum	1-3
EDRD 414 Literature for Children, Adolescents and Young Adults	3
EDRD 415 Current Trends and Issues in Reading/Language Education	3
EDRD 419 Reading and Writing Development of Preschool/Primary Children	2

Note that elective courses are to be chosen in consultation with advisor.

Minor in Special Education**Program Requirements****Total credits required for this minor18**

This program is designed for undergraduate students who desire a special education minor to accompany any major or teacher licensure program other than a special education program. A second goal is to prepare students for an advanced degree in Special Education. The minor meets the core requirements for special education endorsements in Colorado. Additional requirements in other special education programs must be met before students with a minor are eligible for special education endorsement.

Required Credits — 12 semester hours*Special Education Core*

EDSE 300 Foundations and Communication in Special Education	3
EDSE 301 Development and Learning in Exceptional Students	3
EDSE 302 Educational Interventions for Meeting the Needs of Exceptional Individuals	3
EDSE 303 Assessment of Exceptional Individuals	3

Required Elective Credits — 6 semester hours (minimum)

EDSE 400 The Severely/Profoundly Handicapped	3
EDSE 350 Structure of Language	3
EDSE 380 Introduction to Education of the Gifted and Talented	3
EDSE 440 Introduction to the Education of the Visually Handicapped	3
EDSE 450 Introduction to Hearing Impaired	3
EDSE 451 Basic Sign Language	4

Programs of Study

College of Health and Human Sciences

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Location: Gunter 1000 **Telephone:** 970-351-2877 **FAX:** 970-351-2176
Dean: Vincent A. Scalia **Assistant Dean:** Robbyn R. Wacker

The College of Health and Human Sciences is a multidisciplinary unit offering undergraduate and graduate programs in a wide range of disciplines in the health care, human service and human performance professions. The College recognizes its obligations to serve in the several capacities of teaching, research and service. The fundamental aim of the College is excellence and distinction in these pursuits.

Programs of the College are designed to prepare students for the proficient and successful practice of a profession and to pursue advanced educational opportunities. Students are prepared for careers in Athletic Training, Coaching, Fitness and Exercise, Physical Education, Recreation, Audiology, Speech-Language Pathology, Dietetics, Gerontology, Nursing, Public Health, Human Rehabilitative Services, Rehabilitation Counseling and Vocational Evaluation. Graduates find employment in schools, hospitals, public and private agencies, business and industry.

The College of Health and Human Sciences is a unique resource in terms of the quality and type of academic programs it offers. The mission of the College is to provide the best possible education for its undergraduate and graduate students, to contribute to knowledge and the solution of significant problems through research and to serve the people of Colorado and the nation.

The College contains five units:

- Department of Communication Disorders
- Department of Community Health and Nutrition
- Department of Human Services
- School of Kinesiology and Physical Education
- School of Nursing

Programs within each unit are approved and/or accredited by appropriate professional organizations. The College provides a wide array of physical activity courses for college credit in order to enrich students' present and future sport, recreation and leisure pursuits.

Clinics and Laboratories

Faculty and students from all programs in the College participate in the College's multidisciplinary health clinics and human performance laboratories that provide student learning experiences and client care services. Well equipped laboratories for studying physiological, mechanical and psychological kinesiology and a teaching laboratory with state-of-the-art video equipment and computers provide faculty and students with excellent instructional and research capabilities.

The **Speech-Language Pathology Clinic** provides assessment and treatment services for speech and language problems in the areas of articulation, voice, stuttering, language and augmentative/alternative communication devices.

The **Audiology Clinic** provides a full range of services related to hearing including hearing assessment, special hearing tests, hearing aid evaluations, hearing aid analysis and dispensing, speechreading and auditory training, counseling on hearing impairment, noise measurement and other related services. Services are extended to nursing homes and industry on a contractual basis.

Faculty and students in the **Community Health Clinic** plan and provide comprehensive health education and health promotion programs for individuals, groups and agencies in the region. This clinic also provides Health Risk Appraisal Services.

The **Dietetics Program** conducts research and offers nutritional assessment and counseling in its clinic area.

The **Human Services Clinic** provides learning experiences and client services in vocational evaluation, job seeking and placement skills for independent living.

Programs in the **School of Nursing Clinic** provide learning experiences and health services in a variety of health areas. Included are health assessment, health counseling, health promotion and illness prevention activities.

An outstanding faculty of teachers and scholars serves the students enrolled in College programs. Among the faculty members are nationally recognized scholars, researchers, master teachers, experts and vigorous groups of talented coaches, all dedicated to providing high quality programs and the personal attention students at UNC have come to expect.

English Essay Exam

Every student must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and may be retaken any number of times. There is a fee to retake the examination. Additional information can be obtained from the English Department, Michener L50, phone 970-351-1576.

Communication Disorders Department

Location: Gunter 1400 **Telephone:** 970-351-2734 **FAX:** 970-351-1601
Chair: Kathryn Bright

Professors: R. Steven Ackley, Ph.D.; Donna J. Bottenberg, Ph.D.; Francis A. Griffith, Ph.D.; Dennis R. Ingrisano, Ph.D.

Associate Professors: John Baumgartner, Ph.D.; Kathryn Bright, Ph.D.; Linda Cleeland, M.A., M.Ed.; Ellen Meyer Gregg, Ph.D.

Assistant Professors: Kathleen Fahey, Ph.D.

Instructors: Julie Hanks, M.A.; Linda Jelden, M.A.; Susan Morrison, M.A.

Clinical Staff: Laurie Kastner-Wells, M.S.; Jenny Weber, M.A.

The Department of Communication Disorders offers educational programs in Speech-Language Pathology and Audiology both with a clinical orientation. The department also houses the Speech-Language Pathology and Audiology Clinic. Students majoring in either emphasis area of this department who meet the grade point requirement and who pass speech-language-hearing screening by the department faculty are offered the opportunity for supervised clinical experiences through the Speech-Language Pathology and Audiology Clinic and various other centers and programs on- and off-campus. The educational programs offered through this department are as follows:

Audiology

The diagnosis, treatment and management of hearing disorders and related areas.

UNC offers an undergraduate pre-professional major in Audiology, a non-certification master's degree program and a professional certifying master's degree program. The certifying master's degree program is fully accredited and provides excellent academic, research, and clinical preparation. Areas emphasized include:

- Diagnosis of hearing disorders in persons ranging in age from infants through older adults.
- Audiological treatment of the hearing impaired, including counseling and specific treatment procedures for children and adults.
- Auditory Electrophysiology procedures including ABR, OAE and ENG.
- Hearing aids and other amplification and auditory prosthetic devices.
- Hearing conservation programs for industry, schools and other agencies.

This program offers extensive supervised clinical experience through the well-equipped UNC Speech-Language Pathology and Audiology Clinic and ancillary clinics in Colorado. The program is accredited for audiological services through the Professional Services Board (PSB) of the Boards of Examiners in Speech-Language Pathology and Audiology (BESPA) of the American Speech-

Language-Hearing Association (ASHA). The M.A. Audiology program leading to certification is accredited by the Colorado Department of Education (CDE) and by the Educational Standards Board (ESB) of the BESP.A.

Career opportunities include positions in hospitals; ear, nose and throat clinics; audiology clinics; private ear, nose and throat medical practices; rehabilitation centers; schools; industry; and in private practice.

Speech-Language Pathology

This program prepares students in the diagnosis and treatment of speech and language disorders.

UNC offers an undergraduate pre-professional major and a professional certifying master's degree program and a master's degree program that does not lead to certification. The master's degree program that leads to certification is accredited by the CDE and by the ASHA.

Areas emphasized include the diagnosis and treatment of articulation, voice, fluency, dysphagia, neurogenics and language disorders in persons ranging in age from young children through older adults.

The certifying master's degree program offers extensive supervised clinical experiences through the UNC Speech-Language Pathology and Audiology Clinic. The speech-language pathology services of this clinic are accredited by the Professional Services Board of the BESP.A. The graduate degree program is accredited by the Colorado Department of Education, for persons who plan to work in the schools and by the Educational Standards Board of the BESP.A.

Career opportunities include positions in schools; hospitals; ear, nose and throat medical practices; rehabilitation centers; and private practice.

Community Health and Nutrition Department

Location: Gunter 2280 **Telephone:** 970-351-2755 **FAX:** 970-351-1489
Chair: Larry R. Harrison

Community Health

Professors: Bryan E.M. Cooke, Ph.D., M.P.H., CHES; William G. Parkos, Ph.D.

Associate Professors: William Ebomoyi, Ph.D.; Kathleen Zavela, M.P.H., Ph.D., CHES

Assistant Professor: Larry R. Harrison, M.S.

The Department of Community Health and Nutrition at the University of Northern Colorado is the only department in Colorado to offer the following undergraduate and graduate degree programs:

- Bachelor of Science: Community Health Education
- Minor in Community Health Education
- Minor in School Health Education
- Master of Public Health

Students in these programs are prepared to work with people of all ages — helping them prevent disease and developing positive healthy lifestyles. Students take a broad range of courses covering health and disease processes, effective educational strategies and community health resources. Coursework in Community Health Education is supported by classes from the behavioral, natural and social sciences. Both undergraduate and graduate programs include pre-professional experiences through practica and internships. In addition, the College of Health and Human Sciences Clinic provides students with opportunities to practice health education skills as part of regular classroom activities.

The Bachelor of Science program is the only one of its kind in the western United States approved by the Society of Public Health Education and the Master of Public Health program is the only program of its kind in the Rocky Mountain region with Council on Education for Public Health (CEPH) accreditation.

Careers in community health are people-oriented, with employment opportunities available for working with people in all age groups. Examples of such opportunities include: community-wide health promotion programs, smoking cessation programs, employee fitness seminars, adolescent health programs, child abuse prevention and wellness programs for the elderly.

Dietetics

Location: Gunter 2280 **Telephone:** 970-351-2755 **FAX:** 970-351-1489
Chair: Larry R. Harrison **Program Coordinator:** Sherrie Frye

Associate Professor: Sherrie Frye, Ph.D., R.D.

Assistant Professor: Jamie Erskine, Ph.D., R.D.

The Dietetics major offers a wide range of studies applicable to community, clinical, private practice and management aspects of nutrition in health care.

To complete the professional preparation, graduates must complete a dietetic internship or an approved pre-professional practice program (AP4) before taking the registered dietitian examination.

Dietetic graduates are prepared for career opportunities in nutrition, dietetics, education, management and research.

Human Services Department

Location: Gunter 1250 **Telephone:** 970-351-2403 **FAX:** 970-351-1255
Chair: Dennis A. Gay

Gerontology

Location: Gunter 1250 **Telephone:** 970-351-2403 **FAX:** 970-351-1255
Coordinator: Robbyn R. Wacker

Professor: Priscilla J. Kimboko, Ph.D.

Associate Professor: Robbyn R. Wacker, Ph.D.

The Gerontology program provides the student with the opportunity to study the human aging processes and to learn skills needed in working directly with the older population. A broad spectrum of courses is offered covering the social, psychological and biological aspects of aging. Individuals who hold a degree in gerontology are prepared to work as service providers in social service agencies, senior centers, long term care facilities, adult day care and other community organizations. The Gerontology Program offers: Bachelor of Science in Gerontology; Minor in Gerontology; Master of Arts in Gerontology with emphases in Management/Administration, Direct Services or General Studies; and a Graduate Certificate in Gerontology.

Human Rehabilitative Services

Location: Gunter 1250 **Telephone:** 970-351-2403 **FAX:** 970-351-1255
Coordinator: Dennis A. Gay

Professors: Dennis A. Gay, Ph.D.; Juliet H. Fried, Ed.D.; Vincent A. Scalia, Ed.D.; Richard R. Wolfe, Ph.D.

Associate Professors: Raymond E. Nelson, Ph.D.; Joseph N. Ososkie, Ph.D.

The Department of Human Services houses the only rehabilitation degree programs in Colorado. The following undergraduate and graduate degree programs are offered: Bachelor of Science: Human Rehabilitative Services; Master of Arts: Rehabilitation Counseling; Master of Arts: Rehabilitation Counseling with Emphasis in Vocational Evaluation; and a Doctor of Philosophy: Human Rehabilitation.

Students in these programs are prepared at three professional levels to work with people with physical and/or mental disabilities. Both undergraduate and graduate programs include experiences through practica and internships.

Careers in Human Rehabilitation are available in areas of direct service, administration, teaching and research.

In addition to the academic programs, the Department operates the following programs:

- Region VIII Rehabilitation Continuing Education Program — Morris Hansen, Ed.D., Director
- Rehabilitative Services Clinic — Dana Vanderhurst, M.A., Vocational Evaluator

Recreation

Location: Gunter 1250 **Telephone:** 970-351-2403 **FAX:** 970-351-1255
Coordinator: N. R. Van Dinter

Professor: Norbert Van Dinter, Ed.D.

The Recreation Program has been a pioneer in the design and development of professional recreation curricula at the undergraduate and graduate levels since it was established in 1964. The Program has been directly responsible for the professional preparation of more than 1,300 undergraduate and graduate students. Graduates have obtained positions in many varied agencies throughout the nation, including the Armed Forces, therapeutic agencies, corporations, sports and fitness centers, voluntary agencies (e.g., YMCA, Boy's Club, Campfire, Inc.), universities and city, state and national agencies.

The Program is committed to providing students with the highest possible quality education. All faculty have had both academic and practical experience in their subject areas and place a special emphasis on excellence in instruction and academic advising. The Program sponsors a Recreation Majors Club, subscribes to pertinent job bulletins and maintains detailed files on internship placements available throughout the world. Additionally, the Program co-sponsors a Therapeutic Activities Program where students are provided an opportunity to work with disabled individuals and learn how to put classroom theory into practice. This concept of "learning through doing" is further emphasized through numerous volunteer opportunities and the internship experience.

The graduate program is unique to the State of Colorado. The curriculum is designed to prepare students as administrators, supervisors and educators in a variety of leisure service agencies. Courses are scheduled to assist commuting, part time and working individuals to complete their degree within a reasonable time frame. Full time students are encouraged to gain practical experience before graduation and with the close proximity of the Denver metropolitan area, opportunities for employment are numerous.

The UNC Recreation program received National Recreation and Park Association/American Association for Leisure and Recreation accreditation in March of 1990.

School of Kinesiology and Physical Education

Location: Gunter Hall 2590 **Telephone:** 970-351-1712

Director: David Stotlar

Kinesiology

Location: Gunter 2590 **Telephone:** 970-351-1712 **FAX:** 970-351-1762

Professor: Catherine G. Ratzin Jackson, Ph.D.

Associate Professors: Robert J. Brustad, Ph.D.; Gary D. Heise, Ph.D.; Daniel Libera, M.A.; Carole M. Schneider, Ph.D.

Assistant Professor: Shannon Courtney, M.A.

Kinesiology is the study of human movement with special emphasis on sport, dance and exercise performance. This study provides a foundation for students entering the professions of physical education, dance, coaching, athletic training and fitness and exercise kinesiology. Undergraduate emphasis areas are available in athletic training, fitness and exercise, mechanical and social psychological kinesiology. Courses provide a scientific basis for the study of physical activity, emphasizing theoretical and practical approaches to the improvement of human performance. Each emphasis in the program area provides classroom, laboratory and supervised practical experience.

Graduate programs in kinesiology provide an opportunity to go into greater depth in the study of human movement. Many research opportunities are available in the kinesiology laboratories. Physiological kinesiology facilities are available for the assessment of biochemical and general physiological adaptations to acute and chronic exercise. Emphasis is on the physiological adaptations of the muscular and cardiorespiratory systems to exercise. Mechanical kinesiology facilities include a motion analysis system for three-dimensional data acquisition using high speed cameras and computerized data reduction to determine the mechanical parameters of total body motion. There is a computerized system for acquiring electronic data through the use of a force platform. Research in social psychological kinesiology is primarily conducted with individuals in natural or "field" settings. In addition, laboratory equipment is also available for motor learning and motor control research.

Physical Education

Location: Butler-Hancock Hall 223 **Telephone:** 970-351-2565

FAX: 970-351-1762

Professors: Cynthia Carlisle, Ed.D.; Carolyn Cody, Ph.D.; Allen Phillips, Ed.D.; Jim Stiehl, Ph.D.; David Stotlar, Ed.D.

Associate Professors: Juan Miguel Fernandez-Balboa, Ed.D.; Elizabeth Bate, Ph.D.; Dianna P. Gray, Ph.D.; Mary Jo Sariscsany, Ed.D.; Marcia Walker, Ph.D.

Assistant Professors: Scott Hall, Ed.D.; Christy Howard, M.S.; J. Kevin Taylor, Ph.D.

Instructors: Nancy Hinrichs, M.A.; Raymond D. Martinez, M.S.; Bobby Rollins, M.A.

Physical Education offers many majors in physical education. Majors in this field provide students an in-depth understanding of pedagogy, kinesiology and the analysis of sport skills.

The strength of Physical Education programs at UNC is based on a unique emphasis. The undergraduate programs prepare students to create and provide meaningful movement experiences for persons from early childhood through adulthood. The curriculum is comprised of both required and elective courses that provide opportunities for developing expertise in understanding human movement. In all classes, the theory and application of physical activity is explained — both the "whys" and "hows" are examined carefully. Focus is on putting theory into practice to improve human performance and all undergraduate programs provide experiences on the sports fields, in the classrooms and in the laboratories.

Minors in physical education and coaching are offered. The physical education minor is a teaching minor, whereas the minor in coaching is designed to provide skills and theory to students who wish to study coaching in a non-teaching setting.

Graduate programs in Physical Education provide students with an opportunity to go into greater depth in the study of pedagogy, sport administration and coaching. Both theory and professional applications are emphasized.

Many laboratory research opportunities are available within the buildings used by the School of Kinesiology and Physical Education. Facilities are available for the study and analysis of teaching physical education. The teaching research laboratory is equipped with state-of-the-art interactive video and computer equipment that is available for student and faculty use. This laboratory is the focal point for the analysis of teaching physical education. The University also operates a large ropes course and indoor climbing facility.

School of Nursing

Location: Gunter 3080 **Telephone:** 970-351-2293 **FAX:** 970-351-1707

Director: Sandra Baird

Professors: Sandra Baird, Ed.D.; Virginia Kinnick, Ed.D.; Judy Richter, Ph.D.; Nancy White, Ph.D.

Associate Professors: Kathryn Blair, Ph.D.; Jane Koeckeritz, Ph.D.; Debra Leners, Ph.D.; Judy Malkiewicz, Ph.D.; Jan Hoot Martin, Ph.D.; Diane Peters, Ph.D.

Assistant Professors: Lory Clukey, M.N.; Faye Hummel, M.S.; Carol Roehrs, M.S.; Linda Sullivan, M.S.

The undergraduate program in nursing is a nine (9) semester program (4 years including one summer) leading to a bachelor of science degree. Qualified students are prepared to be professional nurses and receive a foundation for graduate study in nursing. The Master of Science in Nursing Program has two emphases available: a clinical emphasis in chronic illness of the adult or child with a role emphasis in education; and the Family Nurse Practitioner emphasis. Full and part-time options are available.

The School of Nursing subscribes to the philosophy that nursing is both an art and a science which promotes, supports and restores optimal health in individuals, families and communities. Nursing is a caring profession that is an integral component of the health care delivery system.

Nursing students have a variety of clinical experiences in hospitals, nursing homes, industry, schools and community agencies, primarily in northern and southeastern Colorado communities. Clinical practice is concurrent with nursing theory (classes) and is guided by nursing faculty. Health policies, OSHA requirements, and CPR certification are required.

Bachelor of Arts in Communication Disorders: Audiology

Program Requirements

Required program/major credits	43
Elective credits	37
General Education credits	40
Total credits required for this degree	120

In this comprehensive pre-professional program, students take academic courses and observe and participate in supervised clinical practica. These activities are designed to provide a strong base for entry into a professional certifying degree program at the master's degree level. This degree program does not lead to certification of any type. Students cannot find professional employment within Colorado with only the bachelor's degree in Audiology.

The degree program in audiology can be modified to serve as an excellent undergraduate foundation for entry into the master's degree program in Severe Needs: Hearing (Deaf Education). Students interested in pursuing this option should see their advisor.

Required Credits — 43 semester hours

CMDS 160 Introduction to Human Communication and Its Disorders	3
CMDS 260 Introduction to Phonetics	2

CMDS 265 Fundamentals of Physiological and Biological Acoustics	2
CMDS 266 Normal Speech and Language Development	3
CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism	3
CMDS 360 Articulation and Voice Disorders	3
CMDS 365 Language Disorders in Children I	3
CMDS 370 Basic Audiology	3
CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology	2
CMDS 474 Clinical Practicum in Audiology	1
CMDS 478 Aural Rehabilitation and Amplification	3
CMDS 483 Entry/Primary Speech-Language Pathology Practicum	2
CMDS 487 Advanced Audiology	3
EDSE 451 Basic Sign Language	3
ZOO 115 Human Biology	3
ZOO 245 Introduction to Human Anatomy-Physiology	4

Note

Laboratory material fees are assessed for the following credits CMDS 370, CMDS 474 and CMDS 483.

Bachelor of Arts in Communication Disorders: Speech-Language Pathology

Program Requirements

Required program/major credits	44
Recommended elective credits	3
Elective credits	33
General Education credits	40
Total credits required for this degree	120

In this comprehensive pre-professional program, students take academic courses and observe and participate in supervised clinical practica. These activities are designed to provide a strong base for entry into a professional certifying degree program at the master's degree level. This degree program does not lead to certification of any type. Students cannot be employed within Colorado and most other states with only the bachelor's degree in Speech-Language Pathology.

Required Credits — 44 semester hours

CMDS 160 Introduction to Human Communication and Its Disorders	3
CMDS 260 Introduction to Phonetics	2
CMDS 265 Fundamentals of Physiological and Biological Acoustics	2
CMDS 266 Normal Speech and Language Development	3
CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism	3

CMDS 360 Articulation and Voice Disorders	3
CMDS 365 Language Disorders in Children I	3
CMDS 366 Language Sampling Processes	1
CMDS 370 Basic Audiology	3
CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology	2
CMDS 431 Organically-Based Communication Disorders	3
CMDS 467 Diagnostic Methods and Observation	3
CMDS 474 Clinical Practicum in Audiology	1
CMDS 478 Aural Rehabilitation and Amplification	3
CMDS 483 Entry/Primary Speech-Language Pathology Practicum	2
ZOO 115 Human Biology	3
ZOO 245 Introduction to Human Anatomy — Physiology	4

Strongly Recommended Elective

EDSE 451 Basic Sign Language	3
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Note

Laboratory material fees are assessed for the following credits CMDS 370, CMDS 474, CMDS 483.

Master of Arts in Communication Disorders: Audiology Certifying Degree

Program Requirements

Complete the required credits specified here53-56

This program is designed to prepare students for entry level activity as audiologists. Audiologists are professional practitioners responsible for the prevention, diagnosis, treatment and management of hearing disorders in children and adults.

Areas emphasized in the graduate program include:

- Diagnosis of hearing disorders in persons ranging in age from infants through older adults.
- Audiological treatment of the hearing impaired, including counseling and specific treatment procedures, e.g., speechreading and auditory training.
- Diagnosis for and dispensing of, hearing aids and other amplification and auditory prosthetic devices.
- Consultation for and execution of, noise abatement programs for industry, schools and other agencies.

Supervised clinical practica are provided at both on- and off-campus sites.

Upon completion of the program, graduates are eligible to take the National Examination in Speech-Language Pathology and Audiology (NESPA) and to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC). Certified audiologists find employment in schools, private practice, hospitals, rehabilitation facilities, industry, free-standing clinics and otolaryngological practices.

Admission

In addition to meeting the admission requirements of the Graduate School, students will be admitted to this limited-enrollment program on the basis of (1) a letter of intent, (2) at least two letters of recommendation from persons familiar with their academic/clinical performance and (3) Graduate Record Examination scores. Admission to the Graduate School does not guarantee admission to the Audiology graduate program.

Prerequisites

This program assumes an undergraduate background in Communication Disorders or Audiology. Students who do not have such a background must fulfill academic requirements as determined by their major advisor. Students who are deficient in clinical observation hours, see your advisor for enrollment options.

Master of Arts in Communication Disorders: Audiology Non-Certifying Degree

Program Requirements

Complete the required credits specified here31

This program is designed to provide students academic coursework relating to normal and disordered hearing in children and adults. Students who complete the non-certifying master's program will not participate in any of the clinical practica required in the certifying master's degree program. Therefore, they will not be eligible to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC) and they will not be qualified for Colorado Department of Education certification.

International students will be admitted to the non-certifying master's degree program until such time as they successfully pass the required speech-language-hearing screening conducted by departmental faculty. A student who passes this screening may then elect to follow the master's degree program that leads to certification.

Admission

In addition to meeting the admission requirements of the Graduate School, students will be admitted to this program on the basis of (1) a letter of intent, (2) at least two letters of recommendation from persons familiar with their academic performance and (3) Graduate Record Examination scores. Admission to the Graduate School does not guarantee admission to the Audiology program.

Prerequisites

This program assumes an undergraduate background in Communication Disorders or Audiology. Students who do not have such a background must

Required Credits — 53-56 semester hours

CMDS 515 Referenced and Research Writing	1
CMDS 555 Neuroanatomy and Neurophysiology of Communication	3
CMDS 570 Rehabilitative Audiology	3
CMDS 571 Speech and Hearing Science	3
CMDS 572 Noise	2
CMDS 573 Auditory Physiology and Pathology	3
CMDS 574 Clinical Practicum in Audiology	1
CMDS 580 Practicum in Rehabilitative Audiology	4
CMDS 582 Pediatric/Educational Audiology	3
CMDS 584 Screening Procedures in Speech-Language Pathology	1
CMDS 594 Practicum and Advanced Topics in Audiology	4
CMDS 671 Psychoacoustics	2
CMDS 675 Differential Diagnosis of Auditory Problems	5
CMDS 678 Hearing Aids and Uses of Amplification	3
CMDS 692 Internship in Medical Settings	12 or 15
HRS 610 Interpretation and Evaluation of Behavioral Research (or its equivalent)	3

Notes

In addition to the required courses shown above CMDS 673, Practicum in School Audiology, is required for licensure as an Educational Audiologist by the Colorado Department of Education.

If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, are required.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

Students who complete this program are eligible for the Certificate of Clinical Competence in Audiology from the American Speech-Language-Hearing Association. Students can qualify for licensure from the Colorado Department of Education by taking the additional required practicum as indicated. This program is accredited by the Educational Standards Board of the Boards of Examiners in Speech-Language Pathology and Audiology and by the Colorado Department of Education.

Laboratory material fees are assessed for the following credits: CMDS 571, CMDS 574, CMDS 580, CMDS 584 and CMDS 594.

fulfill academic requirements as determined by their major advisor and must be prepared to spend a longer period of time than usual for completion of the master's degree.

Required Credits — 31 semester hours

CMDS 515 Referenced and Research Writing	1
CMDS 555 Neuroanatomy and Neurophysiology of Communication	3
CMDS 570 Rehabilitative Audiology	3
CMDS 571 Speech and Hearing Science	3
CMDS 572 Noise	2
CMDS 573 Auditory Physiology and Pathology	3
CMDS 582 Pediatric/Educational Audiology	3
CMDS 671 Psychoacoustics	2
CMDS 675 Differential Diagnosis of Auditory Problems	5
CMDS 678 Hearing Aids and Uses of Amplification	3
HRS 610 Interpretation and Evaluation of Behavioral Research (or its equivalent)	3

Notes

If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, must be taken in addition to the requirements described above.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program. Laboratory material fees are assessed for the following course: CMDS 571.

Master of Arts in Communication Disorders: Speech-Language Pathology Certifying Degree

Program Requirements

Complete the required credits specified here64-70

This program is designed to prepare students for entry level activity as speech-language pathologists. Speech-language pathologists are professional practitioners responsible for the prevention, diagnosis and treatment of speech and language disorders in children and adults.

Areas emphasized in the graduate program include the diagnosis and treatment of articulation, voice, fluency and language disorders in persons ranging in age from young children through older adults. Supervised practica are provided in both on- and off-campus facilities.

Upon completion of the program, graduates are eligible to take the National Examination in Speech-Language Pathology and Audiology (NESPA) and to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC). Certified speech-language pathologists find employment in the public schools, private practice, hospitals, rehabilitation facilities and free-standing clinics.

Admission

In addition to meeting the admission requirements of the Graduate School, students will be admitted to this limited-enrollment program on the basis of (1) a letter of intent, (2) at least two letters of recommendation from persons familiar with their academic/clinical performance and (3) Graduate Record Examination scores. Admission to the Graduate School does not guarantee admission to the Speech-Language Pathology graduate program.

Prerequisites

This program assumes an undergraduate background in Speech-Language Pathology and related areas. Students who do not have such a background must fulfill academic requirements as determined by their major advisor. Students who are deficient in clinical observation hours, see your advisor for enrollment options.

Required Credits — 64-70 Semester Hours

CMDS 515 Referenced and Research Writing 1
CMDS 555 Neuroanatomy and Neurophysiology of Communication 3

CMDS 561 Voice Disorders and Cleft Palate	3
CMDS 565 Neurogenic Communication Disorders	4
CMDS 569 Advanced Diagnostic Procedures	4
CMDS 571 Speech and Hearing Science	3
CMDS 583 Entry/Primary Speech-Language Pathology Practicum	2
CMDS 585 Advanced Graduate Practicum in Speech-Language Pathology	4
CMDS 592 Internship in Public Schools	12 or 15
CMDS 616 Speech and Language Services in the Public Schools	1
CMDS 660 Clinical Phonology	3
CMDS 662 Stuttering	3
CMDS 681 Experimental Phonetics	3
CMDS 683 Advanced Topics in Language Disorders	3
CMDS 692 Internship in Medical Settings	12 or 15
HRS 610 Interpretation and Evaluation of Behavioral Research (or its equivalent),	3

Notes

Students who do not pursue a thesis must complete both internships: CMDS 592, Internship in Public Schools and CMDS 692, Internship in Medical Settings, for 12-15 semester hours each. Students who elect to complete a thesis may be exempted from one of these internships, with the consent of their academic advisor and they must complete CMDS 699, Thesis: Communication Disorders, for six semester hours and SRM 602, Statistical Methods I, for three semester hours, in addition to the requirements shown above.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

Students who complete this program are eligible for the Certificate of Clinical Competence in Speech-Language Pathology from the American Speech-Language-Hearing Association and for licensure from the Colorado Department of Education. This program is accredited by the Educational Standards Board of the Board of Examiners in Speech-Language Pathology and Audiology and by the Colorado Department of Education.

Laboratory material fees are assessed for the following credits: CMDS 569, CMDS 571, CMDS 583 and CMDS 585.

Master of Arts in Communication Disorders: Speech-Language Pathology Non-Certifying Degree

Program requirements

Complete the required credits specified here32

This program is designed to provide students academic coursework relating to normal and disordered speech and language in children and adults, without preparing them for direct clinical service. Students who complete the non-certifying master's program will not participate in any of the clinical practica required in the certifying master's degree program. Therefore, they will not be eligible to complete the Clinical Fellowship Year (CFY) required by the American Speech-Language-Hearing Association (ASHA) for the Certificate of Clinical Competence (CCC) and they will not be qualified for Colorado Department of Education certification.

International students will be admitted to this program until such time as they successfully pass the required speech-language-hearing screening conducted by the department faculty. A student who passes this screening may then elect to follow the certifying master's degree program.

Admission

In addition to meeting the admission requirements of the Graduate School, students will be admitted to this program on the basis of (1) a letter of intent, (2) at least two letters of recommendation from persons familiar with their academic performance and (3) Graduate Record Examination scores. Admission to Graduate School does not guarantee admission to the Speech-Language Pathology non-certifying master's degree program.

Prerequisites

This program assumes an undergraduate background in Speech-Language Pathology and related areas. Students who do not have such a background

must fulfill academic requirements as determined by their major advisor and must be prepared to spend a longer period of time than usual for completion of the master's degree.

Required Credits — 32 semester hours

CMDS 515 Referenced and Researched Writing	1
CMDS 555 Neuroanatomy and Neurophysiology of Communication	3
CMDS 561 Voice Disorders and Cleft Palate	3
CMDS 565 Neurogenic Communication Disorders	4
CMDS 571 Speech and Hearing Science	3
CMDS 586 Basic Clinical Strategies in Speech-Language Pathology/Audiology	2
CMDS 616 Speech and Language Services in the Public Schools	1
CMDS 660 Clinical Phonology	3
CMDS 662 Stuttering	3
CMDS 681 Experimental Phonetics	3
CMDS 683 Advanced Topics in Language Disorders	3
HRS 610 Interpretation and Evaluation of Behavioral Research (or its equivalent)	3

Notes

If the student decides to complete a thesis, six hours of CMDS 699, Thesis: Communication Disorders and three hours of SRM 602, Statistical Methods I, must be taken in addition to the requirements described above.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

Laboratory material fees are assessed for the following course: CMDS 571.

Bachelor of Arts in Dietetics

Program Requirements

Required program/major credits	34
Required supporting credits	22
General Education credits:	
Specified	21
Remaining	19
Elective credits	24
Total credits required for this degree	120

The major focus of the bachelor of arts degree program in Dietetics is in the field of health. It is a useful and practical area of study for students interested in health maintenance and rehabilitation through the science of nutrition. Physiological, biological and behavioral sciences provide the foundation for a wide range of studies applicable to community, clinical, private practice and management aspects of nutrition in health care.

The dietetics program is approved by the American Dietetic Association. Students in this program develop human relationship skills and expertise in addressing nutritional needs for human growth and development throughout the life cycle. Upon completion of the prescribed course of study, students are qualified for entry level careers in community, clinical, consultative dietetics and food service management positions in business and industry. At the senior level, a student may apply for a dietetic internship or an approved pre-professional practice program (AP-4) under the supervision of a registered dietitian. After completion of the internship or pre-professional program, the student is eligible to take the examination required to become a registered dietitian.

Required Credits — 34 semester hours

FND 210 Medical Terminology	2
FND 250 Principles of Nutrition	3
FND 252 Nutrition in the Life Cycle	3
FND 342 Food Science	4
FND 410 Professional Development Seminar	3
FND 430 Clinical Nutrition I	3

FND 431 Clinical Nutrition II	3
FND 446 Food service Systems Management	4
FND 451 Advanced Nutrition	3
FND 452 Community Nutrition	3
FND 455 Nutrition for Fitness and Athletic Performance	3

Required Supporting Credits — 22 semester hours

<i>Sciences — 13 semester hours</i>	
BIO 351 Microbiology	4
CHEM 109 Fundamentals of Chemistry II	5
ZOO 245 Introduction to Human Anatomy-Physiology	4
<i>Business — 9 semester hours</i>	
BA 101 Business Computing	3
BAAC 220 Principles of Accounting I	3
BAMG 350 Management of Organizations	3

General Education, Specific Credits — 21 semester hours

<i>Skills — Intermediate Composition</i>	
SCI 291 Scientific Writing	3
<i>Skills — Mathematics</i>	
STAT 250 Statistics for Health Sciences	3
<i>Category 5 — Social Sciences</i>	
ECON 105 Introduction to Economics Microeconomics	3
PSY 120 Principles of Psychology	4
<i>Category 6 — Science and Mathematics</i>	
CHEM 108 Fundamentals of Chemistry I	5
<i>Category 7c — International Cultures</i>	
ANT 110 World Cultures	3
or	
SPCO 323 International Communication	3

Note

Dietetic majors are charged a laboratory fee when they enroll in the following course FND 342.

Bachelor of Science in Gerontology

Program Requirements

Required program/major credits	38
Required elective credits	5
General Education credits:	
Specified	13
Remaining	27
Minor or concentration area	18
Total credits required for this degree	120

The gerontology program provides the student the opportunity to study the human aging processes and to learn skills needed in working directly with the older population.

Individuals who hold a bachelor of science degree in gerontology are prepared to work as service providers in social service agencies, senior centers, long term care facilities, adult day care and other community organizations.

Required Credits — 38 semester hours

BIO 415 Biology of Aging	2
GERO 205 Introduction to Gerontology	3
GERO 460 Community Resources for the Elderly	4
GERO 465 Management Concepts in Aging Services	3
GERO 490 Senior Seminar and Research in Gerontology	3
GERO 492 Undergraduate Internship in Gerontology	12

Master of Arts in Gerontology Emphasis in Direct Service

Program Requirements

Complete the required credits specified here	49
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The master of arts program in gerontology prepares students for professional responsibility in counseling-related, administrative positions or similar professional endeavors within the aging network.

Graduates find employment in health related or long term care facilities, senior centers, recreation programs, community college teaching, pre-retirement educational programs, mental health related activities, industrial settings or private practice/consultation.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) 2 letters of recommendation, b) Miller Analogies Test scores, and c) a Statement of Interest covering the following topics (maximum 10 pages double-spaced):

- Why have you chosen gerontology? What factors and events motivated your interest in gerontology? Discuss your attitude and philosophy toward aging in general and your personal aging in particular. Also discuss your attitude or philosophy toward research, community change and advocacy.
- What are your career and educational goals? In what role and in what organizational setting would you ultimately like to be employed? Why have you chosen the Direct Service emphasis area?
- What past exposure have you had to gerontology? Include any coursework or work experience (paid or volunteer) you have had related to aging. If you

HRS 394 Practicum in Human Services	2
HRS 480 Human Service Helping Skills	3
PSY 331 Maturity and Aging	3
SOC 371 Sociology of Aging	3

Required Elective Credits — 5 semester hours

Select from the following:

CH 236 Health and Lifestyles Among the Elderly	3
CMDS 470 Communication Disorders of the Aging	2
FND 252 Nutrition in the Life Cycle II	3
GERO 235 Issues in Adulthood	3
GERO 395 Special Topics	3
REC 251 Leisure Recreation and the Older Adult	3
HRS 394 Practicum in Human Services	2
SOC 322 Women and Aging	3

General Education, Specified Credits — 13 semester hours

Category 5 — Social Sciences

PSY 230 Human Growth and Development	4
SOC 100 Principles of Sociology	5

Category 2 — Mathematics

STAT 250 Statistics for Health Sciences	3
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Category 6 — Science and Mathematics

ZOO 115 Human Biology (L)	3
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have had none, provide a justification of your current interest in the field of aging.

- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Credits — 49 semester hours

GERO 560 Community Resources for the Elderly	4
GERO 565 Management Concepts in Aging Services	3
GERO 625 Psychosocial Aspects of Aging	3
GERO 630 Intervention Strategies with the Elderly	3
GERO 635 Social Policies of Aging	3
GERO 640 Health Aspects of Gerontology	3
GERO 692 Graduate Internship in Gerontology	12
HRS 610 Interpretation and Evaluation of Behavioral Research	3
HRS 630 Human Services Counseling Theories and Techniques	3
HRS 694 Practicum in Human Services Counseling	6
Two advisor-approved electives whose content focuses on direct practice skills or service issues	6

Notes

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

The following course requires a laboratory materials fee: HRS 694.

Master of Arts in Gerontology Emphasis in General Studies

Program Requirements

Complete the required credits specified here46

The master of arts program in gerontology prepares students for professional responsibility in counseling-related, administrative positions or similar professional endeavors within the aging network.

Graduates find employment in health related or long term care facilities, senior centers, recreation programs, community college teaching, pre-retirement educational programs, mental health related activities, industrial settings or private practice/consultation.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) 2 letters of recommendation, b) Miller Analogies Test scores, and c) a Statement of Interest covering the following topics (maximum 10 pages double-spaced):

- Why have you chosen gerontology? What factors and events motivated your interest in gerontology? Discuss your attitude and philosophy toward aging in general and your personal aging in particular. Also discuss your attitude or philosophy toward research, community change and advocacy.
- What are your career and educational goals? Why have you chosen the General Studies emphasis area? In what role and in what organizational setting would you ultimately like to be employed?
- What past exposure have you had to gerontology? Include any coursework or work experience (paid or volunteer) you have had related to aging. If you

Master of Arts in Gerontology Emphasis in Management/Administration

Program Requirements

Complete the required credits specified here49

The master of arts program in gerontology prepares students for professional responsibility in counseling-related, administrative positions or similar professional endeavors within the aging network.

Graduates find employment in health related or long term care facilities, senior centers, recreation programs, community college teaching, pre-retirement educational programs, mental health related activities, industrial settings or private practice/consultation.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) 2 letters of recommendation, b) Miller Analogies Test scores, and c) a Statement of Interest covering the following topics (maximum 10 pages double-spaced):

- What factors and events motivated your interest in gerontology? Discuss your attitude and philosophy toward aging in general and your personal aging in particular. Also discuss your attitude or philosophy toward research, community change and advocacy.
- What are your career and educational goals? Why have you chosen the Management Administration emphasis area? In what role and in what organizational setting would you ultimately like to be employed?
- What past exposure have you had to gerontology? Include any coursework or work experience (paid or volunteer) you have had related to aging. If you

have had none, provide a justification of your current interest in the field of aging.

- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Credits — 46 semester hours

GERO 560 Community Resources for the Elderly	4
GERO 565 Management Concepts in Aging Services	3
GERO 625 Psychosocial Aspects of Aging	3
GERO 630 Intervention Strategies with the Elderly	3
GERO 635 Social Policies of Aging	3
GERO 640 Health Aspects of Gerontology	3
GERO 692 Graduate Internship in Gerontology	12
HRS 610 Interpretation and Evaluation of Behavioral Research	3
BIO 415 or 515 Biology of Aging	2
GERO 655 Program Planning and Evaluation in Gerontology	3
or	
NURS 505 Nursing Research	3
Advisor approved courses	7

Note

Successful completion of a written comprehensive exam is required to complete the Master of Arts program. The opportunity to complete a thesis is available within this emphasis. Students should contact the Program Coordinator or his/her academic advisor for admission criteria.

have had none, provide a justification of your current interest in the field of aging.

- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Credits — 49 semester hours

GERO 560 Community Resources for the Elderly	4
GERO 565 Management Concepts in Aging Services	3
GERO 625 Psychosocial Aspects of Aging	3
GERO 630 Intervention Strategies with the Elderly	3
GERO 635 Social Policies of Aging	3
GERO 640 Health Aspects of Gerontology	3
GERO 650 Personnel Management in Aging Programs	3
GERO 655 Program Planning and Evaluation in Gerontology	3
GERO 660 Financial Management and Budgeting for Aging Programs	3
GERO 665 Grant Development and Administration	3
GERO 692 Graduate Internship in Gerontology	12
HRS 610 Interpretation and Evaluation of Behavioral Research	3
Advisor approved course	3

Note

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

Bachelor of Science in Health Emphasis in Community Health

Program Requirements

Required program/major credits	48
Required elective credits	18
General Education credits:	
Specified	18
Remaining	22
Elective credits	14
Total credits required for this degree	120

The Bachelor of Science in Health Education prepares the student with the skills and competencies to function in health education settings of all kinds. Examples of such settings include voluntary health agencies, county and state health departments, health promotion programs in business and industry, patient education in hospitals and wellness programs for the elderly.

Students must complete a full-time internship (320 contact hours) following the completion of all other required courses, with the approval of their major advisors.

Required Credits — 48 semester hours

BA 101 Business Computing	3
CH 205 Issues in Health	3
CH 209 Foundations of Health Promotion/Education	3
CH 293 Sophomore Practicum In Community Health	3
CH 299 Community Health Systems	3

Master of Public Health Emphasis in Community Health Education

Program Requirements

Complete the required credits specified here	37
Complete program electives specified here	8

Students earning the Master of Public Health with an Emphasis in Community Health Education are prepared to assume administrative and coordinating positions in health agencies, hospitals and industrial settings.

The graduate program is designed to accommodate students who wish to earn the Master of Public Health degree with an Emphasis in Community Health Education on either a part-time or full-time basis. Graduate tuition scholarships and graduate assistantships are available to students on a competitive basis. Careers in the field are multifaceted, requiring knowledge in the scientific and theoretical basis of health promotion/disease prevention as well as skills in communication, organization and administration.

Students must complete six hours of internship (320 contact hours) and successfully pass a written comprehensive examination in order to complete the Master of Public Health program.

Admission

In addition to meeting the admission requirements of the Graduate School, students must submit with their application at least two letters of recommendation and a typed, one-page statement of career goals.

Students applying with less than a 3.0 GPA for the last 66 semester hours must complete GRE or MAT requirements before the completion of the first semester of attendance.

CH 320 Introductory Epidemiology and Biostatistics	3
CH 330 Health Promotion/Health Education Strategies	3
CH 342 Modern Concepts of Health and Disease	3
CH 350 Introduction to Environmental Health	3
CH 405 Media and Materials for Health Education	3
CH 410 Introduction to Program Planning and Evaluation	3
CH 440 Foundations of Health Program Management	3
CH 492 Internship in Health	12

Required Elective Credits — 18 semester hours

Note that electives must be approved by the student's major advisor.

General Education, Specified Credits — 18 semester hours

Category 5 — Social Sciences

PSY 120 Principles of Psychology	4
SOC 100 Principles of Sociology	3

Category 6 — Science and Mathematics

CHEM 108 Fundamentals of Chemistry I	5
ZOO 115 Human Biology	3

Category 7 — Interdisciplinary, Multicultural and International Studies

CH 236 Health and Lifestyle Among the Elderly	3
or	
GERO 205 Introduction to Gerontology	3

Required Credits — 37 semester hours

CH 509 Seminar in Health Behavior	3
CH 530 Seminar in Health Promotion Strategies	3
CH 540 Principles of Health Program Management	3
CH 550 Environmental Health	3
CH 560 Scientific Foundations of Health Promotion/Disease Prevention	3
CH 610 Program Planning and Evaluation	4
CH 620 Epidemiology	3
CH 625 Public Health Administration and Policy	3
CH 692 Graduate Internship in Health Education	6
SRM 602 Statistical Methods I	3
HRS 610 Interpretation and Evaluation of Behavioral Research	3
or	
SRM 600 Introduction to Graduate Research	3

Required Elective Credits — 8 semester hours

Note that elective units are selected with consent of advisor.

Note

Successful completion of a written comprehensive exam is required to complete the Master of Public Health program. Students wishing to pursue a thesis option in lieu of comprehensive exams must do so in consultation with their advisor.

Bachelor of Science in Human Rehabilitative Services

Program Requirements

Required core credits	39
Required minor or area of concentration	18
Elective credits	23
General Education credits	40
Total credits required for this degree	120

The Human Rehabilitative Services program educates students in rehabilitative theory and procedures relevant to helping people.

Individuals who hold a bachelor of science degree in Human Rehabilitative Services are prepared to work in a variety of Human Service settings or to enter into graduate education related to the helping professions.

Required Core Credits — 39 semester hours

HRS 290 Introduction to Human Rehabilitative Services	3
HRS 380 Rehabilitation Principles and Case Management	3
HRS 385 Working with Families in Rehabilitation	3
HRS 394 Practicum in Human Services	3
HRS 470 Client Assessment	3
HRS 480 Human Service Helping Skills	3
HRS 485 Medical and Psychological Aspects of Disability for Human Services Workers	3
HRS 490 Career Planning and Placement	3
HRS 492 Clinical Internship	12

STAT 150 Introduction to Statistical Analysis	3
or	
STAT 250 Statistics for Health Sciences	3

Minor or Area of Concentration — 18 semester hours

Students must complete a minor or an area of concentration totaling 18 credits. Students should consider their career goal as they select a minor or an area of concentration. For example, students looking at careers in the corrections field should consider the corrections courses from sociology; if interested in mental health facilities, consider psychology as their minor or area of concentration. Students are encouraged to confer with their advisor in establishing an area that will meet the student's need.

General Education

Category 2

STAT 150 Introduction to Statistical Analysis	3
or	
STAT 250 Statistics for Health Sciences	3

Category 7

GERO 205 Introduction to Gerontology	3
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Note

Students must make application for practicum and clinical internship five (5) weeks before the semester in which the field experience is planned.

Master of Arts in Rehabilitation Counseling

Program Requirements

Complete the required core credits specified here	48
Complete advisor approved program electives specified here	12

Admission

In addition to meeting the Admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) two letters of recommendation, b) Miller Analogies Test scores, and c) a Statement of Interest covering the following topics (maximum of ten pages double-spaced).

- What factors and events motivated your interest in rehabilitation? Discuss your attitude and philosophy in general. Describe your attitude or philosophy toward research, community change and advocacy.

- What are your career and educational goals? Why have you chosen rehabilitation counseling as your area of study? In what role and in what organizational setting would you ultimately like to be employed?

- What past exposure have you had to rehabilitation? Include any coursework or work experience (paid or volunteer) you have had. If you have had none, provide a justification of your current interest in the field.

- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Core Credits — 48 semester hours

HRS 580 Rehabilitation Principles and Case Management	3
HRS 581 Vocational Evaluation and Assessment of People with Disabilities	3
HRS 585 Occupational Information and Job Placement	3
HRS 605 Medical Aspects of Disability	3
HRS 606 Psychosocial Aspects of Disability	3
HRS 610 Interpretation and Evaluation of Behavioral Research	3
HRS 630 Human Services Counseling Theories and Techniques	3
HRS 631 Group Processes in Rehabilitation	3

HRS 635 Cultural and Family Concerns in Rehabilitation	3
HRS 692 Supervised Clinical Practice in Rehabilitation Counseling	15
HRS 694 Practicum in Human Services Counseling	6

Note that required courses may be waived only by the department chair on written recommendation of the student's advisor.

Elective Credits — 12 semester hours

GERO 665 Grant Development and Administration	3
HRS 586 Community Integrated Employment	3
HRS 590 Rehabilitation Services in Facilities and Private Sector	3
HRS 591 Independent Living in Rehabilitation	3
HRS 597 Counseling and Treatment of the Substance Abuser	3
HRS 611 Vocational Evaluation Planning and Reporting	3
HRS 612 Seminar in Vocational Evaluation Systems	3
HRS 650 Human Resources System	3
HRS 660 Advanced Seminar in Client Assessment	3
HRS 693 Practicum in Vocational Evaluation	6

Notes

To complete requirements for rehabilitation counseling, 12 semester hours must be taken from required electives. Substitutions to electives may be made only with department faculty approval on the written petition of the student.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students for application for national certification as a Rehabilitation Counselor and/or Vocational Evaluator.

Laboratory materials fee is required for each enrollment in HRS 693 and HRS 694.

Master of Arts in Rehabilitation Counseling Emphasis in Vocational Evaluation

Program Requirements

Complete the required credits specified here60

Admission

In addition to meeting the Admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) two letters of recommendation, b) Miller Analogies Test scores, and c) a Statement of Interest covering the following topics (maximum of ten pages double-spaced).

- What factors and events motivated your interest in rehabilitation? Discuss your attitude and philosophy toward research, community change and advocacy.
- What are your career and educational goals? Why have you chosen vocational evaluation as your emphasis area? In what role and in what organizational setting would you ultimately like to be employed?
- What past exposure have you had to rehabilitation? Include any coursework or work experience (paid or volunteer) you have had. If you have had none, provide a justification of your current interest in the field.
- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Credits — 60 semester hours

HRS 580 Rehabilitation Principles and Case Management	3
HRS 581 Vocational Evaluation and Assessment of People with Disabilities	3
HRS 585 Occupational Information and Job Placement	3
HRS 605 Medical Aspects of Disability	3

HRS 606 Psychosocial Aspects of Disability	3
HRS 610 Interpretation and Evaluation of Behavioral Research	3
HRS 611 Vocational Evaluation Planning and Reporting	3
HRS 612 Seminar in Vocational Evaluation Systems	3
HRS 630 Human Services Counseling Theories and Techniques	3
HRS 635 Cultural and Family Concerns in Rehabilitation	3
HRS 660 Advanced Seminar in Client Assessment	3
HRS 692 Supervised Clinical Practice in Rehabilitation Counseling	15
HRS 693 Practicum in Vocational Evaluation	6
HRS 694 Supervised Counseling in Human Services	6

Notes

Required courses may be waived only by the department chair on written recommendation of the student's advisor.

HRS 692, Supervised Clinical Practice in Rehabilitation Counseling, must be completed in an approved evaluation setting.

Successful completion of a written comprehensive exam is required to complete the Master of Arts program.

The master's program is fully accredited by the Council on Rehabilitation Education (CORE) and qualifies students for application for national certification as a Rehabilitation Counselor and/or Vocational Evaluator.

Laboratory materials fee is required for each enrollment in HRS 693.

Doctor of Philosophy in Human Rehabilitation

Program Requirements

Complete the required credits specified here64

Admission

Admission into the doctoral program in Human Rehabilitation is determined by the graduate faculty of the department, with final approval of the graduate dean. All doctoral applicants must meet the following criteria for preliminary consideration:

- Hold a master's degree from an accredited college or university, in Rehabilitation Counseling or a closely allied discipline. The appropriateness of a degree in a related discipline will be determined by the graduate faculty of the department. If the student is deficient in rehabilitation counseling content, the equivalents determined by the student's program committee will be included in the plan of study.
- Have two years of work experience (or equivalent, as determined by the department's graduate faculty) in the field of rehabilitation. This must include the minimum of one year's experience before receipt of the master's degree and completion of a minimum of two years of work experience before receipt of the doctorate.
- Meet all University of Northern Colorado Graduate School requirements.
- Submit all requested materials to the Department of Human Services for review by its faculty.
- Participate in a personal interview on request. Admission decisions are based on multiple criteria, without fixed weights for any criterion.

Required Core Credits — 41 semester hours

SRM 700 Advanced Research Methods	3
HRS 755 Supervised Practicum in College Teaching	3
HRS 757 Advanced Practicum in Rehabilitation Administration	3
HRS 758 Advanced Practicum in Rehabilitation Research	3
HRS 759 Advanced Practicum in Counseling Supervision	3
HRS 760 Professional Development Seminar in Rehabilitation	4
HRS 794 Advanced Clinical Internship	6
HRS 797 Doctoral Proposal Research	4
HRS 799 Doctoral Dissertation	12

Research and Statistics Requirements — 12 semester hours

All doctoral students are required to take a minimum of 12 graduate level credits in Statistics and Research and satisfactorily complete the Statistics and Research portion of the doctoral examination. This satisfies one of the two required University research tools and these 12 credits may count toward the 64 credits required for doctoral coursework.

All doctoral students must demonstrate competence in a second research tool by satisfactorily completing the criteria for one of the following University approved research tools.

Computer Applications — 9 semester hours

Satisfactorily complete with a grade of "B" or better a minimum of 9 credit hours of advisor approved computer application courses. These credits, if graduate level, may count toward the required total hours for graduation or the student may prepare and demonstrate a computer program written to meet a specific application need in the Department of Human Services. This program must be judged as "acceptable" by the student's doctoral program committee.

Foreign Language

Pass the E.T.S. examination in any major foreign language (i.e., other than English) with a score not less than the 30th percentile. Students whose native language is other than English may be determined to have satisfied this requirement by unanimous vote of the student's doctoral program committee.

Elective Credits

The remainder of the student's credits will be selected by the student and the program committee on the basis of the student's background and interests.

Bachelor of Arts in Kinesiology Emphasis in Athletic Training

Program Requirements

Required program/major credits	43
Required supporting credits	14
General Education credits:	
Specified	15
Remaining	25
Elective credits	23
Total credits required for this degree	120

This program is designed for the undergraduate who wishes to prepare for a career as a Certified Athletic Trainer. Preparation for this allied health profession focuses on the areas of prevention, management and rehabilitation of injuries that occur in sport. Upon successful completion of this program, the student will have fulfilled the requirements to take the National Certification Examination administered by the Board of Certification of the National Athletic Trainers Association.

Required Credits — 43 semester hours

KINE 220 Anatomical Kinesiology	3
KINE 221 Biomechanics	3
KINE 222 Physiological Kinesiology	3
KINE 323 Neuromotor Kinesiology	3
KINE 380 Prevention and Care of Sports Injuries	2
KINE 381 Practical Experiences in the Care of Athletic Injuries	15
Note that this course is divided into five modules for three semester hours each. One will be offered each semester. The modules are:	
• Anatomy Applied to Injury	
• Emergency Care and Referral	
• Modality Application	
• Program Administration	
• Current Athletic Training Topics	
KINE 390 Cardiopulmonary Resuscitation Certification	1
KINE 404 Exercise Nutrition and Body Composition	3
KINE 485 Mechanism and Evaluation of Sports Injuries	3

Bachelor of Arts in Kinesiology Emphasis in Biomechanics

Program Requirements

Required core credits	26
Required supporting credits	30-31
General Education credits:	
Specified	12
Remaining	28
Elective credits	36
Total credits required for this degree	120-121

This program is designed to provide students with a broad background in kinesiology with specific emphasis on biomechanics of human movement. The emphasis is designed to provide students with the biological and mechanical foundations necessary to prepare them for work in the area of biomechanics (e.g., laboratory setting, equipment companies, clinics that use motion analysis) or for further study at the graduate level. Students are encouraged to pursue minors in physics and biological sciences. Careful curriculum planning with a faculty adviser can help students design a program that allows pursuit of the student's individual career goals.

Required Core Credits — 26 semester hours

KINE 220 Anatomical Kinesiology	3
KINE 221 Biomechanics	3
KINE 222 Physiological Kinesiology	3
KINE 323 Neuromotor Kinesiology	3
KINE 333 Psychological Analysis of Sports Exercise and Physical Activity	3
KINE 380 Prevention and Care of Sports Injuries	2
KINE 402 Human Performance Assessment	3
KINE 404 Exercise Nutrition and Body Composition	3
KINE 436 Social Influences on Sport and Exercise Behavior	3

KINE 486 Clinical Methods in Sports Injury Rehabilitation	3
KINE 487 Therapeutic Modalities	2
KINE 488 Athletic Training Administration	2

Required Supporting Credits — 14 semester hours

CHEM 109 Fundamentals of Chemistry II	5
PE 233 Advanced First Aid and CPR	2
ZOO 341 Human Anatomy	3
ZOO 350 Human Physiology	4

General Education, Specified Credits — 15 semester hours

<i>Category 5e — Social Sciences (Psychology)</i>	
PSY 120 Principles of Psychology	4
<i>Category 5f — Social Sciences (Sociology)</i>	
CH 205 Issues in Health	3
<i>Category 6b — Science and Mathematics (Life Sciences)</i>	
ZOO 115 Human Biology	3
<i>Category 6d — Science and Mathematics (Physical Sciences)</i>	
CHEM 108 Fundamentals of Chemistry I	5

Notes

Clinical experience of 1500 clock-hours (minimum 5 semesters) under supervision of Certified Athletic Trainer at UNC is required.

Any student receiving a grade of "D" or lower in a course in the major must retake the course until a grade of "C" or higher is achieved.

Admission to the Athletic Training Clinical Program

The designations of Athletic Training as a major does not assure admission to the Clinical Athletic Training Program. The number of students enrolled to the clinical program is limited to 16 students. Students must make a separate application to the Clinical Athletic Training Program at the end of their freshman year. Admission is based on available openings, GPA, experience, and interview. Additional information is available from the program coordinator.

Required Supporting Credits — 30-31 semester hours

(12 credits are General Education — see note below)	
CG 110 BASIC Programming	3
ZOO 115 Human Biology	3
ZOO 341 Human Anatomy	3
<i>Choose one of the following two math/physics series:</i>	
MATH 131 Calculus and Analytical Geometry I	4
MATH 132 Calculus and Analytical Geometry II	4
MATH 233 Calculus and Analytical Geometry III	4
PHYS 240 General Physics I and	5
PHYS 241 General Physics II	5
or	
MATH 124 College Algebra	4
MATH 125 Plane Trigonometry	3
MATH 127 Elementary Functions	4
PHYS 220 Introductory Physics I and	5
PHYS 221 Introductory Physics II	5

Note

Any student receiving a grade of "D" or lower in a KINE prefix course must retake the course until a grade of "C" or higher is achieved.

General Education Category 2 can be satisfied with MATH 124 or 131.

General Education Category 6 can be satisfied with ZOO 115 and PHYS 220 or ZOO 115 and MATH 132 and PHYS 240, depending on which MATH/PHYS series is chosen.

Bachelor of Arts in Kinesiology Emphasis in Fitness and Exercise Kinesiology

Program Requirements

Required program/major credits	45
Required supporting credits	9
General Education credits:	
Specified	6
Remaining	34
Elective credits	26
Total credits required for this degree	120

This program is designed to prepare individuals to work in one or more of the following areas: 1) Cardiac Rehabilitation, 2) Gerontological Fitness, 3) Fitness and Exercise Program Management and 4) Strength and Endurance Conditioning of Athletes.

Required Credits — 45 semester hours

KINE 220 Anatomical Kinesiology	3
KINE 221 Biomechanics	3
KINE 222 Physiological Kinesiology	3
KINE 323 Neuromotor Kinesiology	3
KINE 311 Pharmacology for Exercise Professionals	1
KINE 380 Prevention and Care of Sports Injuries	2
KINE 400 Fitness Management	3
KINE 402 Human Performance Assessment	3

KINE 404 Exercise Nutrition and Body Composition	3
KINE 406 Exercise Programming	3
KINE 410 Principles of Electrocardiography	3
KINE 436 Social Influences on Sport and Exercise Behavior	3
KINE 492 Internship in Fitness and Exercise Kinesiology	12
Note that KINE 492 can be taken in 6-semester hour blocks.	

Required Supporting Credits — 9 semester hours

CHEM 109 Fundamentals of Chemistry II	5
ZOO 245 Introduction to Human Anatomy Physiology	4

Required General Education — 6 semester hours

CHEM 108 Fundamentals of Chemistry I	5
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Take one of the following courses

PE 145 Activity for Stress Management	1
PE 146 Aerobics	1
PE 150 Jogging and Walking	1
or	
PE 152 Swimming Conditioning	1

Category 6 — Science and Mathematics

Category 3 — Physical Activity

Any student receiving a grade of "D" or lower in a KINE prefix course must retake the course until a grade of "C" or higher is achieved.

Bachelor of Arts in Kinesiology Emphasis in Outdoor Physical Education (K-12, K-6, 7-12)

Program Requirements

Required program/major credits	43
Required Physical Education PTEP credits	15
Required pre-professional credits	3
Required PTEP core credits	26
General Education credits:	
Specified	4
Remaining	36
Total credits required for this degree	127

Students who plan to use this emphasis as a licensure program for teaching outdoor physical education must complete the program of Professional Teacher Education described below. Students who wish to be licensed to teach in the State of Colorado must make application upon completion of their program.

Students who plan to apply for K-12 Teacher Licensure in the State of Colorado must student teach at both the elementary and secondary school levels. Students who plan to apply for licensure at only K-6 or only 7-12 are required to student teach at the appropriate educational level. Before student teaching, students must have completed all required Analysis and Teaching (A and T) or Approaches and Methods (A and M) courses and the "Methods Block" and the Philosophy and Pedagogy of Outdoor Physical Education. All required competencies must also be completed before student teaching.

Students choosing this emphasis must have a minimum overall 2.8 cumulative GPA at UNC and a 3.0 GPA in their last 30 hours of required courses for this major.

Required Credits — 43 semester hours

PE 116 Water Safety Instructor	2
CH 205 Issues in Health	3
PE 210 Movement Fundamentals and Motor Development	3
PE 215 Analysis and Teaching of Basketball	2
PE 217 Analysis and Teaching of Soccer	2
PE 218 Analysis and Teaching of Softball	2
PE 219 Analysis and Teaching of Volleyball	2
PE 229 Adventure Activities and Motor Learning	3
PE 232 Pedagogy of Outdoor Physical Education	3
PE 233 Advanced First Aid and CPR	2
PE 461 Administration and Law	2
KINE 380 Prevention and Care of Sports Injuries	2

Take one of the following two courses:

PE 211 Weight Training and Anatomy	3
PE 213 Sports and Mechanics	3

Students must complete one of the following coaching and officiating courses:

PE 312 Coaching and Officiating Baseball	2
PE 313 Coaching and Officiating Basketball	2
PE 314 Coaching and Officiating Football	2
PE 315 Coaching and Officiating Gymnastics	2
PE 316 Coaching and Officiating Tennis	2
PE 317 Coaching and Officiating Track and Field	2
PE 318 Coaching and Officiating Soccer	2
PE 319 Coaching and Officiating Softball	2
PE 320 Coaching and Officiating Swimming	2

PE 321 Coaching and Officiating Volleyball	2
PE 322 Coaching and Officiating Wrestling	2
Take five of the following courses:	
PE 234 A and M of Bike Touring and Cycling	2
PE 235 A and M of Cross Country and Adventure Skiing	2
PE 236 A and M of Technical Rock Climbing and Basic Mountaineering	2
PE 237 A and M of Whitewater and Wilderness Canoeing	2
PE 238 A and M of Winter Wilderness Living Skills and Travel Wilderness Ski Expedition	2
PE 239 A and M of Outdoor Adventure and Wilderness Living Skills and Travel Backpacking	2

Required Physical Education PTEP credits — 15 semester hours

PE 266 Seminar in Management and Instruction in Physical Education	1
PE 466 Seminar in Student Teaching for Physical Education	3
PE 344 Clinical Experience in Teaching Physical Education*	3
PE 345 Methods of Teaching Elementary Physical Education*	2
PE 346 Methods of Teaching Secondary Physical Education*	2
PE 347 Tests and Measurements in Physical Education*	2
PE 432 Adaptive Physical Education	2

* Methods block courses must be taken concurrently

Required Pre-Professional Credits — 3 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Required PTEP Core Credits — 26 semester hours

EDFE 270 Field Based Experience	2
EDFE 444 Supervised Teaching	15
EPSY 346 Learning and Development for Teachers	2
EDRD 425 Reading in the Content Areas	1
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2

General Education, Specified — 4 semester hours

Category 5 — Social Science

PSY 120 Principles of Psychology	4
or	
PSY 230 Human Growth and Development	4

Notes

Outdoor physical education majors must achieve basic competency in the following: two of the four team sport A&T classes (PE 215, PE 217, PE 218, PE 219), and three of the five A&M Outdoor classes (PE 234, PE 235, PE 236, PE 237, PE 238).

Clinical Experience of 90 clock-hours under the supervision of UNC Adventure Programming staff is required. The number of students admitted to the program is limited due to resources. Students must submit a separate application to the Outdoor Physical Education Coordinator. Admission is based on available openings, grades in related courses (minimum 3.0 GPA), experience, letters of support and a personal interview. Additional specific information on admission requirements is available from the Outdoor Physical Education program coordinator.

Bachelor of Arts in Kinesiology

Emphasis in Physical Education (K-12, K-6, 7-12)

Program Requirements

Required program/major credits	41
Required Physical Education PTEP credits	15
Required pre-professional credits	3
Required PTEP core credits	26
General Education credits:	
Specified	4
Remaining	36
Total credits required for this degree	125

Students who plan to use this emphasis as a licensure program for teaching physical education must complete the Professional Teacher Education Program described below. Students who wish to be licensed to teach in the State of Colorado must make application upon completion of their program.

Students who plan to apply for K-12 Teacher Licensure in the State of Colorado must student teach at both the elementary and secondary school levels. Students who plan to apply for licensure at only K-6 or only 7-12 are required to student teach at the appropriate educational level. Before student teaching, students must have completed all required Analysis and Teaching (A and T) courses and the "Methods Block". All required competencies must also be completed prior to student teaching. Students choosing this emphasis must have a 2.7 GPA in their major and a 2.5 in all coursework before student teaching. Any student receiving a grade of "D" or lower in a course in the major must retake the course until a grade of "C" or higher is achieved.

Required Credits — 41 semester hours

KINE 380 Prevention and Care of Sports Injuries	2
PE 209 Analysis and Teaching of Dance	2
PE 210 Movement Fundamentals and Motor Development	3
PE 211 Weight Training and Anatomy	3
PE 212 Fitness and Conditioning and Physiology	3
PE 213 Sports and Mechanics	3
PE 214 History and Philosophy	2
PE 215 Analysis and Teaching of Basketball	2
PE 217 Analysis and Teaching of Soccer	2
PE 218 Analysis and Teaching of Softball	2
PE 219 Analysis and Teaching of Volleyball	2
PE 226 Analysis and Teaching of Racquet Sports	2
PE 229 Adventure Activities and Motor Learning	3
PE 233 Advanced First Aid and CPR	2
PE 436 Social-Cultural Foundations	2
PE 461 Administration and Law	2
<i>Take one of the following analysis and teaching courses:</i>	
PE 207 Analysis and Teaching of Individual Sports	2
PE 208 Analysis and Teaching of Tumbling and Gymnastics	2
PE 227 Analysis and Teaching of Track and Field	2

Bachelor of Arts in Kinesiology

Emphasis in Social Psychological Kinesiology

Program Requirements

Required core credits	24
Required elective credits	8
General Education credits:	
Specified	7
Remaining	33
Elective credits	42
Prerequisites not listed above	6
Total credits required for this degree	120

The coursework and experience in this major are designed to provide the student with a broad background in kinesiology along with an opportunity for an in-depth emphasis in the social psychological components of human movement.

Required Core Credits — 24 semester hours

KINE 220 Anatomical Kinesiology	3
KINE 221 Biomechanics	3
KINE 222 Physiological Kinesiology	3
KINE 323 Neuromotor Kinesiology	3
KINE 333 Psychological Analysis of Sports Exercise and Physical Activity	3
KINE 404 Exercise Nutrition and Body Composition	3
KINE 436 Social Influences on Sport and Exercise Behavior	3
PSY 265 Social Psychology	3
or	
SOC 332 Social Psychology	3

PE 228 Analysis and Teaching of Wrestling	2
PE 230 Analysis and Teaching of Self Defense	2
<i>Students must complete one of the following coaching and officiating courses:</i>	
PE 312 Coaching and Officiating Baseball	2
PE 313 Coaching and Officiating Basketball	2
PE 314 Coaching and Officiating Football	2
PE 315 Coaching and Officiating Gymnastics	2
PE 316 Coaching and Officiating Tennis	2
PE 317 Coaching and Officiating Track and Field	2
PE 318 Coaching and Officiating Soccer	2
PE 319 Coaching and Officiating Softball	2
PE 320 Coaching and Officiating Swimming	2
PE 321 Coaching and Officiating Volleyball	2
PE 322 Coaching and Officiating Wrestling	2

Required Physical Education PTEP credits — 15

PE 266 Seminar in Management and Instruction in Physical Education	1
PE 466 Seminar in Student Teaching for Physical Education	3
PE 344 Clinical Experience in Teaching Physical Education*	3
PE 345 Methods of Teaching Elementary Physical Education*	2
PE 346 Methods of Teaching Secondary Physical Education*	2
PE 347 Tests and Measurements in Physical Education*	2
PE 432 Adaptive Physical Education	2

* Methods block courses must be taken concurrently.

Required Pre-Professional Credits — 3 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Required PTEP Core credits — 26 semester hours

EDFE 270 Field Based Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling: Context and Process	4
EDSE 410 Exceptional Students in the Regular Classroom	2
EDRD 425 Reading in the Content Areas	1
EDFE 444 Supervised Teaching	15

General Education, Specified — 4 semester hours

<i>Category 5 — Social Science</i>	
PSY 120 Principles of Psychology	4
or	
PSY 230 Human Growth and Development	4

Note

Physical education majors must achieve basic competency in the following: PE 209, PE 210 and in two of the four team sports Analysis and Teaching classes (PE 215, 217, 218 and 219).

Required Elective Credits — 8 semester hours

PSY 244 Group Processes and Roles	3
PSY 323 Health Psychology	3
PSY 330 Child and Adolescent Psychology	3
PSY 366 Industrial Psychology	3
PSY 389 Research in Human Development	5
PSY 400 Research Design and Analysis	5
PSY 443 Motivation	3
SOC 221 Sociology of Sex Roles	3
SOC 326 Sociology of Childhood and Adolescence	3
SOC 351 Classical Social Theory	3
SOC 352 Contemporary Social Theory	3
SOC 361 Social Research	3
SOC 362 Social Statistics	3

General Education — Specified Credits — 7 semester hours

<i>Category 5f — Social Sciences (Sociology)</i>	
SOC 100 Principles of Sociology	3
<i>Category 5e — Social Sciences (Psychology)</i>	
PSY 120 Principles of Psychology	4

Note

Any student receiving a grade of "D" or lower in the required core or required elective courses must retake the course until a grade of "C" or higher is achieved.

Undergraduate Nursing Major Requirements

Admission Requirements

Preclinical Major. Students interested in nursing are accepted as pre-clinical nursing majors if they meet the general admission requirements of the University. Formal application is made to and obtained from the University of Northern Colorado Office of Admissions.

It is highly recommended that students planning a career in nursing include chemistry, biology and algebra in their high school programs. Proficiency in mathematics is essential to success in the nursing program.

Students enrolled in the preclinical major will receive academic advisement from members of the School of Nursing faculty.

Clinical Major. The designation of pre-clinical nursing major does not assure admission to the clinical nursing program. A separate application and acceptance process during the sophomore year is required for the student to enter clinical nursing courses in the junior year. Forms for applying to the clinical program and information about application procedures are obtained at the School of Nursing late fall semester.

The following factors will be considered by the nursing faculty in the selection of students:

- Cumulative grade point average at UNC and/or all previous institutions. Contact the School of Nursing for specifics on the GPA calculation.
- Only applicants who, at the time of application, have earned a cumulative grade point average of 2.0 in the required science courses or as many as have been completed of the following: CHEM 108, ZOO 115, ZOO 341, ZOO 350 and BIO 351 will be considered.
- Other selection variables may include: Letter of recommendation, personal essay, ethnic background, rural residency.

The number of students admitted to the clinical nursing program is determined by available resources. Available resources may also limit possibilities for readmission to the program for those students who withdraw for any reason. Scores on selected tests measuring such factors as aptitude, cognitive, affective and psychomotor skills and achievement may be used for advisement.

All students entering the professional clinical nursing major must be certified in cardiopulmonary resuscitation (CPR) for the adult and child as evidenced by current CPR card. This certification must be maintained while in the program. CPR courses are available outside the School of Nursing.

Registered Nurses Pursuing B.S. Degree. Graduates of state-approved diploma or associate degree programs in nursing are eligible to apply for admission to the baccalaureate program in nursing. The program to be pursued by R.N. students has been designed to be as flexible and responsive to individual student needs as possible, within the constraints and resources of the School of Nursing.

The Nursing Undergraduate Program

The School of Nursing subscribes to a philosophy of nursing that views the patient holistically. Congruent with the belief in the dignity and worth of people is the belief that the individual has a right to be an active participant in the decisions concerning his or her well-being.

Nursing students have a variety of clinical experiences in hospitals, nursing homes, industry, schools and community agencies, primarily in northern and southeastern Colorado communities with a particular emphasis on rural Colorado. Clinical practice courses are taken concurrently with nursing theory courses and are guided by Nursing faculty.

Progression. Nursing majors must earn a minimum grade of "C" in all required nursing courses for progression to the next level in the nursing major. The nursing program faculty reserves the right to place on probation or to require the withdrawal from the nursing program of any student who in their professional judgment fails to satisfy the requirements of scholarship, health status and/or performance. A student receiving a grade less than "C" in a nursing course will be readmitted to that course on a space-available basis only.

RN-BSN Progression. The length of the program for the registered nurse student depends upon the amount of transfer credit, successful completion of challenge examinations, if needed, and fit into the Colorado Nursing Articulation Model.

Individuals seeking admission must be admitted to the University of Northern Colorado following the procedures outlined in this Bulletin. Students should contact the School of Nursing at the same time for information about R.N. criteria for admission to the nursing major and the specifics of the R.N. program.

L.P.N. Progression. As an L.P.N., challenge options are available in certain required prerequisite courses. L.P.N.s may also be eligible to challenge an area of nursing practice if they meet specified criteria. Progression planning for the LPN through the clinical program is done with the Assistant Director.

Policies. Probation/Termination Policy, Critical Behaviors for Satisfactory Achievement in Clinical Nursing Courses, Withdrawal, Alcohol and Drug Abuse, Cheating/Plagiarism and Health Policies are published in the required Student Handbook.

Missed or Repeated Courses. Students who must repeat a clinical nursing course or who fail to enroll or complete a course on their scheduled rotation will be readmitted for clinical courses on a space-available basis only. Courses may not be offered every semester.

Successive Enrollment. A student who does not enroll for either required support courses or nursing courses for two successive semesters and has not made prior arrangements with the Assistant Director will not be considered a nursing major.

Graduation. The degree of Bachelor of Science in Nursing will be granted by the Board of Trustees upon recommendation of the faculty of the School of Nursing, to those who have successfully completed the prescribed curriculum with an average of "C" or above.

Health Policies. Within the academic year preceding the first clinical course, the student must have met the University's requirements regarding immunizations, received any necessary update in immunizations (such as Rubella titer, PPD, Diphtheria, Tetanus and Rubeola/Rubella/Mumps) and have on record a completed physical examination. Hepatitis B vaccination is required. Thereafter, an annual PPD is required, as well as completion of OSHA requirements.

School Nurse Licensure. Students seeking initial Colorado endorsement for a Type E Certificate in school nursing should contact the Teacher Education Center in McKee Hall for state proficiency examination requirements.

Additional Expenses. In addition to University tuition charges (See semester *Schedule of Classes* for current rates), clinical nursing majors are charged a program fee for every semester they are enrolled in the clinical Nursing Program. This fee is subject to change. Also, clinical nursing majors may anticipate the following expenses in the spring semester before the junior year.

Uniforms	\$ 75
Lab coat	25
Chest x-ray	20
White shoes	30
Penlight	3
Scissors	4
Rubella Titer	8
Hepatitis B Vaccine	150
Watch with second hand	30
Nursing Achievement Examinations	30
Stethoscope	25
Travel	Cost varies

Required uniforms are ordered the semester before clinical assignment. Costs listed here are approximate and subject to change.

Senior Year Expenses:

School pin (optional)	Cost varies
Travel	Cost varies

Clinical Practice. Student practica are offered in agencies according to available resources. All placements require transportation and may necessitate moving from the Greeley area. Students are responsible for their own transportation to all clinical practicums.

Bachelor of Science in Nursing

Program Requirements

Required program/major credits	66
Required supporting credits	36
Required elective credits	1
General Education credits:	
Specified	18
Remaining	22
Total credits required for this degree	125

The undergraduate program in nursing is a nine semester program leading to a bachelor of science degree. Nursing is an independent professional discipline requiring critical inquiry and discriminating judgment to assist individuals, families and communities to attain and maintain health.

Qualified students are prepared as professional nurses and receive a foundation for graduate study in nursing.

The nursing program is accredited by the National League for Nursing (350 Hudson Street, New York, NY 10014 at 1-800-669-1656) and by the Colorado State Board of Nursing. Graduates may be eligible to write the National Council Licensure Examination for Licensure as registered nurses.

Required Credits — 66 semester hours

NURS 310 Foundations of Professional Practice I	3
NURS 312 Health Assessment	3
NURS 314 Health Assessment Practicum	2
NURS 324 Therapeutic Interventions	4
NURS 335 Foundations of Professional Practice II	3
NURS 354 Healthy Individuals and Families Practicum	6
NURS 355 Healthy Individuals and Families Across the Lifespan	4
NURS 410 Foundations of Professional Practice III	3
NURS 424 Episodic Alterations in Adult/Child Practicum	6

Master of Science in Nursing Emphasis in Education

Program Requirements

Complete the required credits specified here	41-43
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The Master of Science in Nursing prepares post baccalaureate nursing students as nurse educators for either academic or inservice settings with clinical emphasis in case management of the chronically ill child or adult. The program is consistent with the characteristics of graduate education accepted by the National League for Nursing. Nursing majors in the Master's program (Emphasis in Education) are charged a program fee for every semester they are enrolled, in addition to University tuition costs (found in semester schedule of classes). Full-time and part-time options are available. Health policies, OSHA requirements and CPR certification are required.

Prerequisites: Research, Graduate statistics course.

The master's program provides expertise valuable for positions in education, in community college settings, institutions of higher education, community health settings and institutions that provide inpatient care for the chronically ill child or adult.

Required Credits — 41-43 semester hours

Core — 9 semester hours	
NURS 600 Nursing Theory	3
NURS 505 Nursing Research	3
NURS 507 Leadership and Nursing Issues	3

NURS 425 Episodic Alterations in Adult/Child Health	7
NURS 435 Foundations of Professional Practice IV	3
NURS 444 Community/Population Based Health Practicum	6
NURS 445 Community/Population Based Health	6
NURS 465 Professional Roles	10

Required Nursing Electives — 1

Required Supporting Credits — 36 semester hours

BIO 351 Microbiology	4
CHEM 108 Fundamentals of Chemistry	5
ENG 123 College Research Paper	3
FND 357 Nutrition in Health and Illness	4
PSY 230 Human Growth and Development	4
STAT 250 Statistics for Health Sciences	3
ZOO 115 Human Biology	3
ZOO 341 Human Anatomy	3
ZOO 350 Human Physiology	4
ZOO 355 Medical Pharmacology	3

Required Credits for Registered Nurses only

NURS 328 Health Assessment for RNs only	4
(replaces NURS 312 (3) and NURS 314 (2))	
NURS 453 Community/Population Based Health for RNs	4
(may replace NURS 445 (6))	
NURS 454 Community/Population Based Health Practicum for RNs	4
(may replace NURS 444 (6))	
NURS 464 Professional Roles for RNs	5
(replaces NURS 465 (10))	
Total required nursing credits for RNs	57
Total credits required for degree	120

Clinical — 17 semester hours

NURS 602 Concepts in Chronic Illness	4
NURS 604 Care of Chronically Ill Adult and Child	4
NURS 612 Advanced Pharmacology	3
NURS 614 Advanced Pathophysiology	3
NURS 690 Advanced Clinical Roles	3

Education — 10 semester hours

EPSY 540 Theories and Principles of Learning	3
NURS 630 Teaching Strategies	3
NURS 660 Nursing Education Seminar	4

Research — 5-7 semester hours

NURS 699 Thesis	6
or	
NURS 691 Applied Research	2-4
and	
Education Elective	3

Note

Successful completion of a comprehensive exam is required to complete the Master of Science program.

Master of Science in Nursing Emphasis in Family Nurse Practitioner (FNP)

Program Requirements

Complete the required courses specified here43-47

The Master of Science in Nursing with an emphasis in FNP prepares the post-baccalaureate nursing student for advanced clinical practice in primary care of families. The graduate is eligible to apply for ANA certification upon program completion. Nursing majors in the Master's program (FNP) will be charged a program fee for every semester they are enrolled, in addition to University tuition costs. Full-time and part-time options are available. Health policies, OSHA requirements and CPR certification are required.

The program provides expertise valuable for generalist primary care practice in a variety of settings. Such practice is both autonomous and interdependent in nature and direct in its care services provision.

Prerequisites: Undergraduate Research, Graduate Statistics Course, Undergraduate Physical Assessment Course.

Required Courses — 43-47

Core — 9 semester hours

NURS 600 Theory	3
NURS 505 Research	3
NURS 507 Leadership and Issues	3

FNP Emphasis — 32 semester hours

NURS 610 Health Assessment	3
NURS 612 Advanced Pharmacology	3
NURS 614 Advanced Pathophysiology	3
NURS 640 Health Care of Families I	4
NURS 645 Health Care of Families II	4
NURS 650 Health Care of Families III	4
NURS 680 FNP Role Practicum	9
NURS 690 Advanced Clinical Roles	2

Research — 2-6 semester hours

NURS 699 Thesis	6
NURS 691 Applied Research	2-4

Note

Successful completion of a comprehensive exam is required to complete the Master of Science program.

Master of Arts in Physical Education Emphasis in Adapted Physical Education

Program Requirements

Complete the required credits specified here26-32
Complete the program electives4

Required Credits — 26-32 semester hours

PE 538 PE for Mentally Impaired	2
PE 539 PE for Physically Handicapped	2
PE 541 Motor Assessment and Prescription	2
PE 602 Introduction to Research in Physical Education and Kinesiology	3
PE 612 Measurement of Human Performance	3
PE 641 Instructional Strategies for Elementary School Physical Education	3
PE 680 Perspectives in Physical Education	3
PE 692 Graduate Internship in Physical Education	2-8
<i>Students must select one of the following courses:</i>	
PE 614 Analysis of Teaching Physical Education	3
PE 640 Curriculum in Physical Education	3
PE 688 Legal Aspects	3

Master of Arts in Physical Education Emphasis in Coaching

Program Requirements

Complete the required credits specified here20
Complete program electives11

The Master of Arts Program in the School of Kinesiology and Physical Education has been designed to provide a graduate experience for individuals in physical education or related fields with emphases in teaching, coaching or administration. Candidates who complete this degree will enhance their professional careers in teaching and non-teaching settings. Students will be able to focus their immediate and future graduate education goals by electing to emphasize the study of teaching, coaching or administration. Career opportunities might include teaching, coaching or administration in the school setting (K-12) or in institutions of higher education.

Required Credits — 20 semester hours

KINE 580 Advanced Prevention Care and Rehabilitation of Athletic Injuries	2
KINE 670 Advanced Sociological Kinesiology	3
PE 550 Program Management	3
PE 602 Introduction to Research in Physical Education and Kinesiology	3
PE 612 Measurement of Human Performance	3
PE 680 Perspectives in Physical Education and Sport	3
PE 688 Legal Aspects	3

Supporting Area Credits — 11 semester hours

Choose electives related to emphasis area and career goals. Must have approval of advisor.

Students must select one of the following courses:

KINE 620 Advanced Anatomical Kinesiology	3
KINE 621 Advanced Mechanical Kinesiology	3
KINE 623 Advanced Neuromotor Kinesiology	3
KINE 624 Advanced Developmental Kinesiology	3
KINE 626 Advanced Physiological Kinesiology	3

Required Elective Credits — 4 semester hours

Electives based upon program and career goals and must be related to the study of adapted physical education or special education. Must have approval of advisor.

Thesis Option — 6 semester hours

The research and writing of a thesis precludes the taking of comprehensive examinations. This is decided between the student and advisor early in the program and depends upon the availability of a research advisor. See School's Graduate Coordinator for additional information.

Teaching

PE 622 Directed Studies	3
PE 630 Adventure Ropes Course Certification	3
PE 631 Outdoor Physical Education and Adventure Education	3
PE 685 Critical Pedagogy	3
PE 692 Graduate Internship in Physical Education	3
PE 695 Seminar in Physical Education	3
PE 696 College Teaching in Kinesiology and Physical Education	3

Note that PE 692 may be taken with approved faculty only.

Administration

PE 576 Sport Promotion and Marketing	3
PE 660 Sport Personnel Management	3
PE 675 Management of Sports Facilities and Equipment	3

Kinesiology

KINE 620 Advanced Anatomical Kinesiology	3
KINE 621 Advanced Mechanical Kinesiology	3
KINE 623 Advanced Neuromotor Kinesiology	3
KINE 624 Advanced Developmental Kinesiology	3
KINE 626 Advanced Physiological Kinesiology	3
KINE 635 Exercise and Sports Psychology	3

Research

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology, 3	
PE 699 Thesis (Optional)	6

Master of Arts in Physical Education Emphasis in Kinesiology

Program Requirements

Complete the required credits specified here21-24
Complete program electives9-12

Kinesiology is the integrated study of human movement. Within this discipline concentrations are available in Biomechanics, Physiological and Social Psychological Kinesiology.

Concentration in Biomechanics — 21 semester hours

Required Credits

PE 602 Introduction to Research in Physical Education and Kinesiology3
PE 612 Measurement of Human Performance3
KINE 625 Laboratory Techniques in Kinesiological Research3

Concentration area requirements

KINE 620 Advanced Anatomical Kinesiology3
KINE 621 Advanced Biomechanics3
KINE 629 Concepts in Kinesiology3

Students are required to take one of the following courses:

KINE 623 Advanced Neuromotor Kinesiology3
KINE 624 Advanced Developmental Kinesiology3
KINE 626 Advanced Physiological Kinesiology3
KINE 670 Advanced Sociological Kinesiology3

Elective Credits — 12 semester hours

Elective credits must be selected with the approval of the program advisor.

The following courses are recommended to be used as electives:

BIO 515 Biology of Aging2
KINE 504 Exercise Nutrition and Body Composition3
KINE 580 Advanced Prevention, Care, and Rehabilitation of Athletic Injuries3
PE 615 Qualitative Research in Physical Education, Recreation, and Kinesiology3
ZOO 551 Mammalian Physiology I4
ZOO 552 Mammalian Physiology II4

Concentration in Physiological Kinesiology (Exercise Physiology) — 24 semester hours

Required Credits

PE 602 Introduction to Research in Physical Education and Kinesiology, 3
PE 612 Measurement of Human Performance3
KINE 625 Laboratory Techniques in Kinesiological Research3

Concentration area requirements

KINE 620 Advanced Anatomical Kinesiology3
KINE 626 Advanced Physiological Kinesiology I3
KINE 627 Advanced Physiological Kinesiology II3
KINE 629 Concepts in Kinesiology3

Students are required to take one of the following courses:

KINE 621 Advanced Biomechanics3
KINE 623 Advanced Neuromotor Kinesiology3
KINE 624 Advanced Developmental Kinesiology3
KINE 670 Advanced Sociological Kinesiology3

Elective Credits — 9 semester hours

Elective credits in a concentration area must have the approval of the program advisor.

Research or Pre Med

BIO 550 Cell Physiology4
CHEM 581 General Biochemistry I4

CHEM 582 General Biochemistry II4
CHEM 586 Biochemistry Techniques3
ZOO 551 Mammalian Physiology I4
ZOO 552 Mammalian Physiology II4
Preventative and Rehabilitative Exercise
KINE 500 Fitness Management3
KINE 502 Human Performance Assessment3
KINE 504 Exercise Nutrition and Body Composition3
KINE 506 Exercise Programming3
KINE 510 Principles of Electrocardiography3
KINE 692 Graduate Internship in Kinesiology3
Nutrition in Sport and Exercise
CHEM 581 General Biochemistry I4
CHEM 582 General Biochemistry II4
FND 555 Nutrition and Physical Fitness2-3

Concentration in Social Psychological Kinesiology (Social Psychology of Sport and Physical Activity) — 21 semester hours

Required Credits

PE 602 Introduction to Research in Physical Education and Kinesiology3
PE 612 Measurement of Human Performance3
KINE 625 Laboratory Techniques in Kinesiological Research3

Concentration area requirements

KINE 635 Sport and Exercise Psychology3
KINE 629 Concepts in Kinesiology3
KINE 670 Advanced Sociological Kinesiology3

Students are required to take one of the following courses:

KINE 620 Advanced Anatomical Kinesiology3
KINE 621 Advanced Biomechanics3
KINE 623 Advanced Neuromotor Kinesiology3
KINE 624 Advanced Developmental Kinesiology3
KINE 626 Advanced Physiological Kinesiology3

Elective Credits — 12 semester hours

Elective courses in a concentration area must have the approval of the program advisor.

PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology, 3,
PE 680 Perspectives in Physical Education and Sport3
PSY 550 Cognitive Development3
PSY 627 Psychometrics3
PSY 643 Theories of Motivation3
PSY 664 Advanced Social Psychology3
SOC 551 Classical Social Theory3
SOC 561 Social Research3
SOC 563 Qualitative Research3
SOC 632 Seminar in Social Psychology3
SOC 650 Sociological Theory3
SOC 660 Advanced Social Research3
SRM 605 Multivariate Analysis I3
SRM 609 Sampling Methods I3

Thesis Option — 6 semester hours

The research and writing of a thesis is in lieu of the comprehensive examination. This is decided between the student and advisor early in the program and depends on the availability of a research advisor. See the Coordinator of the Kinesiology area for additional information.

Master of Arts in Physical Education Emphasis in Outdoor/Adventure Physical Education

Program Requirements

Complete the required credits specified here	27
Complete the program electives	3

The Master of Arts Program in Outdoor/Adventure Physical Education prepares individuals for professional responsibilities in public school teaching-related or administrative positions and also in similar endeavors within the outdoor/adventure network. Supervised clinical practica are provided at both on- and off-campus sites.

Required Credits — 27 semester hours

KINE 580 Advanced Prevention, Care and Rehabilitation of Athletic Injuries	3
PE 602 Introduction to Research in Physical Education and Kinesiology	3
PE 614 Analysis of Teaching in Physical Education	3
PE 630 Adventure Ropes Course Certification	3
PE 631 Outdoor Physical Education and Adventure Education	3
PE 640 Curriculum in Physical Education	3
PE 692 Graduate Internship in Physical Education	3
PE 675 Management of Sport Facilities and Equipment	3

Students must select one of the following two courses:

PE 641 Instructional Strategies for Elementary School Physical Education	3
PE 642 Instructional Strategies for Secondary School Physical Education	3

Elective Credits — 3 semester hours

Electives based upon program and career goals. Must have approval of advisor and program faculty.

Thesis Option — 6 semester hours

The research and writing of a thesis does not preclude the taking of comprehensive examinations. This option is decided between the student and advisor early in the program and depends upon the availability of a research advisor. See school's Graduate Coordinator for additional information.

Note

PE 692 is recommended to be taken at programs such as National Outdoor Leadership School (NOLS), Colorado Outward Bound School (COBS) and Kent Mountain Adventure Center. Special consideration will be given to applicants who possess a teaching certificate in physical education, advanced first aid and CPR, and WSI.

Master of Arts in Physical Education Emphasis in Pedagogy

Program Requirements

Complete the required credits specified here	21
Complete supporting area credits	9

The Master of Arts Program in the School of Kinesiology and Physical Education has been designed to provide a graduate experience for individuals in physical education or related fields with emphases in teaching, coaching or administration. Candidates who complete this degree will enhance their professional careers in teaching and non-teaching settings. Students will be able to focus their immediate and future graduate education goals by electing to emphasize the study of teaching, coaching or administration. Career opportunities might include teaching, coaching or administration in the school setting (K-12) or in institutions of higher education.

Required Credits — 21 semester hours

PE 602 Introduction to Research in Physical Education and Kinesiology	3
PE 612 Measurement of Human Performance	3
PE 614 Analysis of Teaching in Physical Education	3
PE 640 Curriculum in Physical Education	3
PE 641 Instructional Strategies for Elementary School Physical Education	3
PE 642 Instructional Strategies for Secondary School Physical Education	3
PE 680 Perspectives in Physical Education	3

Supporting Area Credits — 9 semester hours

Choose electives based on emphasis area and career goals. Must have approval of advisor.

Teaching

PE 622 Directed Studies	3
PE 630 Adventure Ropes Course Certification	3
PE 631 Outdoor Physical Education and Adventure Education	3
PE 685 Critical Pedagogy	3

PE 692 Graduate Internship in Physical Education	3
PE 695 Seminar in Physical Education	3
PE 696 College Teaching in Kinesiology and Physical Education	3
Note that PE 692 may be taken with approved faculty only.	

Administration

PE 550 Program Management	3
PE 576 Sport Promotion and Marketing	3
PE 660 Sport Personnel Management	3
PE 675 Management of Sports Facilities and Equipment	3
PE 688 Legal Aspects	3

Kinesiology

KINE 620 Advanced Anatomical Kinesiology	3
KINE 621 Advanced Mechanical Kinesiology	3
KINE 623 Advanced Neuromotor Kinesiology	3
KINE 624 Advanced Developmental Kinesiology	3
KINE 626 Advanced Physiological Kinesiology	3
KINE 635 Exercise and Sports Psychology	3
KINE 670 Advanced Sociological Kinesiology	3

Research

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology	3
PE 699 Thesis (Optional)	6

Note

The research and writing of a thesis precludes the taking of comprehensive examinations. This is decided between the student and advisor early in the program and depends on the availability of a research advisor. See Schools' Graduate Coordinator for additional information.

Master of Arts in Physical Education Emphasis in Sport Administration

Program Requirements

Complete the required credits specified here21
Complete program electives9

The curriculum is designed to follow the guidelines set forth for the preparation of students in Sport Management by the National Association for Sport and Physical Education and the North American Society for Sport Management. Students are prepared to assume positions in the management of physical education, athletic and commercial sport programs. The M.A. program requires a minimum of 30 hours.

Required Credits — 21 semester hours

PE 550 Program Management3
PE 560 Issues and Ethics in Sport Management3
PE 576 Sport Promotion and Marketing3
PE 602 Introduction to Research in Physical Education and Kinesiology3
PE 675 Management of Sport Facilities and Equipment3
PE 680 Perspectives in Physical Education and Sport3
PE 688 Legal Aspects3

Elective Credits — 9 semester hours

Students are allowed 9 hours of electives in the master's program. These courses are selected to meet the unique needs of each student in consultation with his or her advisor. The following areas may serve as a guide to the possible cognate areas, which students may elect to pursue.
ECON 502 Advanced Contemporary Economic Problems3
ELPS 610 School Finance and Budgeting3
ELPS 656 Decision Theory3

ELPS 661 Law and Higher Education3
ELPS 652 Personnel Management in Higher Education3
ELPS 659 Collective Bargaining and Conflict Management3
KINE 670 Advanced Sociological Kinesiology3
PE 612 Measurement of Human Performance3
PE 614 Analysis of Teaching in Physical Education3
PE 640 Curriculum in Physical Education3
REC 568 Programs in Recreation3
REC 678 Organization and Operation of Park and Recreation Services3
Note that PE 692 Graduate Internship in Physical Education may be used for up to 6 hours of electives and is designed to assist students who wish to make career changes or who need to bridge the gap between theory and experience.

Thesis Option — 6 semester hours

The research and writing of a thesis precludes the taking of comprehensive examinations. This is decided between the student and advisor early in the program and depends upon the availability of a research advisor. See School's Graduate Coordinator for additional information.

Deficiencies

Students may be required to have graduate coursework as a part of their program of study in the following kinesiology areas.

KINE 620 Advanced Anatomical Kinesiology3
KINE 621 Advanced Mechanical Kinesiology3
KINE 623 Advanced Neuromotor Kinesiology3
KINE 624 Advanced Developmental Kinesiology3
KINE 626 Advanced Physiological Kinesiology3

Doctor of Education in Physical Education Emphasis in Kinesiology

Program Requirements

Complete the required credits specified here28
Complete concentration area credits36

The Doctor of Education in Physical Education is offered through the School of Kinesiology and Physical Education. The following concentration areas are offered by Kinesiology to students pursuing this degree: Biomechanics, Physiological Kinesiology and Social Psychological Kinesiology.

Four of the following six advanced kinesiology courses or their equivalents are prerequisites to KINE 690: Problems of Human Movement. "Equivalent" indicates a student possesses the necessary knowledge and competencies acquired through previous coursework, independent study or experience. The competencies will be determined by the program advisor in consultation with the course instructors of the advanced class at the time of entry into the program. The advanced kinesiology classes may be used to count credit in the concentration area if approved by the program advisor.

Kinesiology Competencies

KINE 620 Advanced Anatomical Kinesiology3
KINE 621 Advanced Biomechanics3
KINE 623 Advanced Neuromotor Kinesiology3
KINE 624 Advanced Developmental Kinesiology3
KINE 626 Advanced Physiological Kinesiology3
KINE 670 Advanced Sociological Kinesiology3

Research Competencies

SRM 600 Introduction to Graduate Research3
PE 602 Introduction to Research in Physical Education and Kinesiology or its equivalent*3

Required Credits — 28 semester hours

SRM 602 Statistical Methods I3
SRM 603 Statistical Methods II (or other*)3
KINE 625 Laboratory Techniques in Kinesiological Research3
KINE 690 Problems of Human Movement3
KINE 797 Doctoral Proposal Research4
KINE 799 Doctoral Dissertation12
* These decisions are to be made in consultation with the program advisor.

Concentration Area Credits — 36 semester hours

Courses are selected in a highly focused concentration area with the consent of the program advisor.

Note

Specific requirements for each concentration area may be obtained from the Coordinator of Kinesiology Programs.

Doctor of Education in Physical Education Emphasis in Pedagogy

Program Requirements

Complete the required credits specified here50
Complete program electives13

Students who successfully complete this degree will have varied career opportunities including teaching and research positions in colleges and universities throughout the United States. Graduates often seek and obtain positions involving teaching and research in teaching methodology, curriculum design, measurement, administrative theory and practice and supervision.

Students will have the opportunity to gain practical experience in pedagogy and administration. They will also have opportunities to participate in ongoing research efforts within the Department. The Department has a well-equipped research laboratory for the study of teaching and various forms of graduate experiences are available in this area.

Deficiencies

Students may be required to have graduate coursework as a part of their program of study in the following kinesiology areas as determined by the program advisor and candidate:

KINE 620 Advanced Anatomical Kinesiology	3
KINE 621 Advanced Mechanical Kinesiology	3
KINE 623 Advanced Neuromotor Kinesiology	3
KINE 624 Advanced Developmental Kinesiology	3
KINE 626 Advanced Physiological Kinesiology	3

Doctor of Education in Physical Education Emphasis in Sport Administration

Program Requirements

Complete the required credits specified here51
Complete program electives13

This curriculum is designed to follow the guidelines set forth for the preparation of students in Sport Management by the National Association for Sport and Physical Education and the North American Society for Sport Management. Students are prepared to assume positions in the management of physical education, athletic and commercial sport programs.

Required Credits — 51 semester hours

PE 576 Sport Promotion and Marketing	3
PE 635 Seminar in Sport Administration	2
PE 650 Financial Management for Sport Organizations	3
PE 660 Sport Personnel Management	3
PE 675 Management of Sport Facilities and Equipment	3
PE 676 Sport Public Relations and Information Systems	3
PE 678 Event Development and Management	3
PE 688 Legal Aspects	3
PE 703 Research Seminar in Physical Education	3
PE 797 Doctoral Research Proposal	4
PE 799 Doctoral Dissertation	12
KINE 670 Advanced Sociological Kinesiology	3
SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3

Required Elective Credits — 13 semester hours

Students are allowed 13 hours of electives in the doctoral program (64 credits beyond the Master's is required for graduation). These courses are selected

Required Credits — 50 semester hours

SRM 602 Statistical Methods I	3
SRM 603 Statistical Methods II	3
PE 614 Analysis of Teaching in Physical Education	3
PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology	3
PE 640 Curriculum in Physical Education	3
PE 641 Instructional Strategies for Elementary School Physical Education	3
PE 642 Instructional Strategies for Secondary School Physical Education	3
PE 685 Critical Pedagogy	3
PE 695 Seminar in Physical Education	4
PE 696 College Teaching in Kinesiology and Physical Education	3
PE 703 Research Seminar in Physical Education	3
PE 797 Doctoral Research Proposal	4
PE 799 Doctoral Dissertation	12

Note that PE 695 is a two-hour class that must be taken twice.

Required Elective Credits — 15 semester hours

Electives are to be based upon program and career goals and must be related to the study of pedagogy. Must have approval of advisor and program committee.

to meet the unique needs of each student in consultation with his or her advisor. The following areas may serve as a guide to the possible cognate areas, which students may elect to pursue.

ELPS 650 School Finance and Budgeting	3
ELPS 652 Personnel Management in Higher Education	3
ELPS 659 Collective Bargaining and Conflict Management in Education	3
ELPS 661 Law and Higher Education	3
PE 640 Curriculum in Physical Education	3
PE 612 Measurement of Human Performance	3
ECON 502 Advanced Contemporary Economic Problems	3
REC 568 Programs in Recreation	3
REC 678 Organization and Operation of Park and Recreation Services	3

Note

PE 692 Graduate Internship in Physical Education may be used for up to 6 hours of electives and is designed to assist students who wish to make career changes or who need to bridge the gap between theory and experience. Graduate Workshops are also offered and students are limited to 9 hours in use toward graduation.

Deficiencies

Students may be required to have graduate coursework as a part of their program of study in the following kinesiology areas.

KINE 620 Advanced Anatomical Kinesiology	3
KINE 621 Advanced Mechanical Kinesiology	3
KINE 623 Advanced Neuromotor Kinesiology	3
KINE 624 Advanced Developmental Kinesiology	3
KINE 626 Advanced Physiological Kinesiology	3

Bachelor of Science in Recreation Emphasis in Therapeutic Recreation

Program Requirements

Required program/major credits	40
Required Emphasis area credits	19
Elective credits	21
General Education credits:	
Specified	13
Remaining	27
Total credits required for this degree	120

A student may earn a bachelor of science degree (non-teaching) in Recreation preparing the student to assume entry level leadership roles in municipal, youth, commercial, industrial, military and therapeutic settings.

The Recreation curriculum is designed to provide the student with leadership and mid-management skills as well as philosophies and knowledge of a variety of recreation settings. A 12-hour internship is required of all senior recreation majors at the end of their academic program and includes a variety of locations and experiences from which to choose. The purpose of the internship program is to provide for an effective transition for students from the classroom to the practical situation. Students must have completed REC 451, REC 468, REC 472 and REC 495 and have a minimum GPA of 2.5 in major courses before beginning their internship. A grade of "D" or "F" in recreation major or minor courses must be repeated.

Enrolled students transferring into Recreation from another UNC major or undeclared must possess an overall GPA of 2.3 to be admitted into the Recreation major or minor.

Students must have a current First Aid and CPR certificate before internship.

Required Credits — 40 semester hours

REC 203 Introduction to Recreation and Leisure	3
REC 204 Introduction to Therapeutic Recreation	3
REC 264 Social and Cultural Recreation Skills	3
REC 269 Recreation Management Skills	4
REC 394 Practicum in Recreation and Leisure Services	3
REC 451 Administration of Leisure Delivery Systems	3

REC 468 Programs in Recreation	3
REC 472 Recreation Leadership	3
REC 492 Internship in Recreation	12
REC 495 Senior Seminar	3
Note that this is a NRPA/AALR Accredited Program.	

General Education, Specified Credits — 13 semester hours

<i>Category 2 — Mathematics</i>	
STAT 150 Introduction to Statistical Analysis	3
or	
STAT 250 Statistics for Health Sciences	3
<i>Category 5 — Social Sciences</i>	
PSY 230 Human Growth and Development	4
ECON 103 Introduction to Economics: Macroeconomics	3
or	
ECON 105 Introduction to Economics: Microeconomics	3
<i>Category 4 — Arts and Letters</i>	
HIST 100 Survey of American History from its Beginning to 1877	3
or	
HIST 101 Survey of American History from 1877 to the present	3

Required Emphasis Area Credits — 19 semester hours

Students who elect to complete the Therapeutic Recreation Emphasis will be prepared to work with individuals with disabilities in clinical and community settings. Certification of therapeutic recreation personnel is often required by such agencies and is administered by the National Council for Therapeutic Recreation Certification (NCTRC). In order to sit for the certification exam, NCTRC requires that the following coursework be completed in addition to those in the Recreation major:

REC 415 Clinical Aspects of Therapeutic Recreation	3
REC 416 Procedures and Techniques of Therapeutic Recreation	3
REC 421 Contemporary Problems in Therapeutic Recreation Service	3
REC 426 Seminar in Recreation Program Development in Therapeutic Recreation	3
PSY 355 Abnormal Psychology	3
ZOO 245 Introduction to Human Anatomy and Physiology	4

Master of Arts in Recreation

Program Requirements

Complete the required credits specified here	18
Complete program electives	12

The master's degree program in recreation is the only advanced degree program of this type in the State of Colorado. The curriculum in this degree program is designed to prepare the student for careers in recreation as an administrator, supervisor, educator or researcher. The program is structured such that students holding undergraduate degrees in allied fields can successfully complete the degree in their chosen area of recreation. Career opportunities are varied and may include mid-management positions in community, medical, industrial, clinical, governmental, commercial or educational settings.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must send DIRECTLY TO THE DEPARTMENT: a) two letters of recommendation, b) Miller Analogies Test Scores, and c) a Statement of Interest covering the following topics (maximum of ten pages double-spaced).

- What factors and events motivated your interest in recreation? Discuss your attitude and philosophy toward the field of leisure services in general and your personal leisure in particular. Also describe your attitude or philosophy towards research and its importance to the field of recreation.
- What are your educational and career goals? In what role and in what type of organizational setting would you ultimately like to be employed?
- What past exposure have you had to recreation/leisure services? Include any coursework or work experience (paid or volunteer) you have had related to recreation or leisure services. If you have had none, provide a justification of your current interest in the field.
- How would you describe your strengths and weaknesses? This should cover such areas as academic ability, capacity to work with others, leadership and ability to cope with stress.

Required Credits — 18 semester hours

HRS 610 Interpretation and Evaluation of Behavioral Research	3
REC 610 Evaluation of Recreation and Leisure Services	3
REC 675 Areas and Facilities in Physical Education and Recreation	3
REC 676 Seminar in Contemporary Problems in Recreation	3
REC 677 Parks and Recreation Management	3
REC 678 Organization and Operation of Park and Recreation Services	3

Elective Credits — 12 semester hours

Appropriate with student career goals. Approval by advisor required.

Note that for students without an undergraduate degree in recreation, additional courses (corequisites) may be required.

Therapeutic Recreation Option — 19 semester hours

Graduate students who elect to complete the Therapeutic Recreation Certification Option will be prepared to work with individuals with disabilities in clinical and community settings. Certification of therapeutic recreation personnel is often required by such agencies and is administered by the National Council for Therapeutic Recreation Certification (NCTRC). In order to sit for the certification exam, NCTRC requires that the following coursework be completed in addition to those in the Master's Program in Recreation:

REC 415 Clinical Aspects of Therapeutic Recreation	3
REC 416 Procedures and Techniques of Therapeutic Recreation	3
REC 421 Contemporary Problems in Therapeutic Recreation Service	3
REC 426 Seminar in Recreation Program Development in Therapeutic Recreation	3
PSY 355 Abnormal Psychology	3
ZOO 245 Introduction to Human Anatomy and Physiology	4

Gerontology Graduate Certificate Program (Non-Degree)

Program Requirements

Complete the required credits specified here22

The certificate in gerontology at the graduate level provides the individual with a broad overview of the field of gerontology.

The certificate is designed for those individuals with a master's degree in a different discipline or other professional designation (i.e., R.N., B.S.W.) or a bachelor's degree and several years of experience in the human services area.

Required Credits — 22 semester hours

GERO 560 Community Resources for the Elderly	4
GERO 625 Psychosocial Aspects of Aging	3
GERO 630 Intervention Strategies with the Elderly	3
GERO 635 Social Policies of Aging	3
GERO 640 Health Aspects of Gerontology	3
GERO 694 Practicum in Gerontology	3
Advisor approved elective in Communication Disorders	3
Total credits required for this minor	19

Minors

Minor in Communication Disorders

Program Requirements

Total credits required for this minor19

Required Credits — 19 semester hours

CMDS 160 Introduction to Human Communication and Its Disorders	3
CMDS 260 Introduction to Phonetics	2
CMDS 265 Fundamentals of Physiological and Biological Acoustics	2
CMDS 266 Normal Speech and Language Development	3
CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism	3
CMDS 365 Language Disorders in Children I	3
CMDS 370 Basic Audiology	3

Notes

The purpose of this minor is to acquaint interested students with various aspects of disorders of human communication. The minor includes coursework in the diagnosis and management of disorders of hearing, speech and language.

The minor in Communication Disorders does not lead to licensure or certification that would permit practice in either Speech-Language Pathology or Audiology.

Laboratory material fees are assessed for the following course: CMDS 370.

Minor in Community Health Education

Program Requirements

Required credits19

Required elective credits6

Total credits required for this minor25

Required Credits — 19 semester hours

CH 205 Issues in Health	3
CH 209 Foundations of Health Promotion/Education	3
CH 299 Community Health Systems	3
CH 330 Health Promotion/Health Education Strategies	4
CH 342 Modern Concepts of Health and Disease	3
CH 410 Introduction to Program Planning and Evaluation	3

Required Elective Credits — 6 semester hours

Elective units selected with consent of advisor.

Minor in Gerontology

Program Requirements

Required credits18

Required elective credits6

Total credits required for this minor24

Required Credits — 18 semester hours

GERO 205 Introduction to Gerontology	3
GERO 460 Community Resources for the Elderly	4
GERO 465 Management Concepts in Aging Services	3
HRS 394 Practicum in Human Services	2
PSY 331 Maturity and Aging	3
SOC 371 Sociology of Aging	3

Required Elective Credits — 6 semester hours (minimum)

CH 236 Health and Lifestyles Among the Elderly	3
CMDS 470 Communication Disorders of the Aging	2
GERO 235 Issues in Adulthood	3
GERO 395 Special Topics	3
REC 251 Leisure, Recreation and the Older Adult	3

Note

The minor in Gerontology is designed to provide students who are majoring in other areas a broad overview of the aging process.

Minor in Nutrition

Program Requirements

Required credits14

Required elective credits6

Total credits required for this minor20

Required Credits — 14 semester hours

CHEM 108 Fundamentals of Chemistry I	5
or	
CHEM 111 Principles of Chemistry	5
FND 250 Principles of Nutrition	3
FND 252 Nutrition in the Life Cycle	3
FND 455 Nutrition for Fitness and Athletic Performance	3

Elective Credits — 6 hours

FND 210 Medical Terminology	2
FND 430 Clinical Nutrition I	3
FND 431 Clinical Nutrition II	3
FND 451 Advanced Nutrition	3
FND 357 Nutrition in Health and Illness	4
FND 420 Maternal and Child Nutrition	3
FND 452 Community Nutrition	3
KINE 404 Exercise Nutrition and Body Composition	3

Minor in Physical Education — Coaching**Program Requirements****Total credits required for this minor18****Required Credits — 18 semester hours**

KINE 380 Prevention and Care of Sports Injuries	2
PE 211 Weight Training and Anatomy	3
PE 212 Fitness and Conditioning and Physiology	3
PE 233 Advanced First Aid/CPR	2
PE 335 Sports Pedagogy	2
PE 461 Administration and Law	2
<i>Take two of the following coaching and officiating courses — 4 semester hours</i>	
PE 312 Coaching and Officiating Baseball	2
PE 313 Coaching and Officiating Basketball	2
PE 314 Coaching and Officiating Football	2
PE 315 Coaching and Officiating Gymnastics	2
PE 316 Coaching and Officiating Tennis	2
PE 317 Coaching and Officiating Track and Field	2
PE 318 Coaching and Officiating Soccer	2
PE 319 Coaching and Officiating Softball	2
PE 320 Coaching and Officiating Swimming	2
PE 321 Coaching and Officiating Volleyball	2
PE 322 Coaching and Officiating Wrestling	2

Notes

The coaching minor has been designed to prepare students to assume coaching roles in school and non-school settings.

The coaching minor candidate must have been a high school varsity athlete in at least one of the Coaching and Officiating areas in which the candidate is enrolled. If the student has not been a varsity athlete, the student must also complete two courses in the Analysis and Teaching Sports series before enrolling in the Coaching and Officiating courses in the same sports.

Minor in Physical Education (K-12) Teaching**Program Requirements****Total credits required for this minor21-22****Required Credits — 21-22 semester hours**

PE 210 Movement Fundamentals and Motor Development	3
PE 211 Weight Training and Anatomy	3
or	
PE 212 Fitness and Conditioning and Physiology	3
<i>Students are required to take two of the following individual sport activity courses — 4 or 5 semester hours</i>	
PE 116 Water Safety Instructor	2
PE 208 Analysis and Teaching of Tumbling and Gymnastics	2
PE 226 Analysis and Teaching of Racquet Sports	2
PE 227 Analysis and Teaching of Track and Field	2
PE 228 Analysis and Teaching of Wrestling	2
PE 229 Adventure Activities and Motor Learning	3
PE 230 Analysis and Teaching of Self Defense	2
<i>Students are required to take two of the following team sport activity courses — 4 semester hours</i>	
PE 215 Analysis and Teaching of Basketball	2
PE 216 Analysis and Teaching of Football	2
PE 217 Analysis and Teaching of Soccer	2
PE 218 Analysis and Teaching of Softball	2
PE 219 Analysis and Teaching of Volleyball	2

Block

Students must take the following four courses that make up the Professional Methods Block, concurrently and at UNC. Students must be accepted into PTEP before taking Methods Block courses.

PE 344 Clinical Experiences in Teaching Physical Education	3
PE 345 Methods of Teaching Elementary Physical Education	2
PE 346 Methods of Teaching Secondary Physical Education	2
PE 347 Tests and Measurements in Physical Education	2

Note that PE 344 is a PTEP course and is not included in the 21-22 hour minor.

Notes

The minor in physical education has been designed primarily for students who would like a second teaching area in physical education or who would like to become qualified to coach athletic teams in school and non-school settings.

The strength of this minor is based on the unique integration of courses in skill analysis, movement sciences and teaching methodology.

Students must pass basic skills competency examinations in Movement Fundamentals and must pass knowledge and analysis competencies in each of the other required activity classes. Specific requirements relative to these competency tests are available from advisors and the school director's office.

Minor in Recreation**Program Requirements****Total credits required for this minor22****Required Credits — 22 semester hours**

REC 203 Introduction to Recreation and Leisure Studies	3
REC 204 Introduction to Therapeutic Recreation	3
REC 264 Social and Cultural Recreation Skills	3
REC 269 Recreation Management Skills	4
REC 394 Practicum in Recreation and Leisure	3
REC 468 Programs in Recreation	3
REC 472 Recreation Leadership	3

Note

The minor in recreation prepares students for secondary careers in community or commercial recreation settings. Students who are required to have a minor will find this program challenging and a useful supporting area that will integrate with most any other major on campus. Students declaring the Recreation minor must possess an overall GPA of 2.3. Grades of "D" and "F" in Recreation courses must be repeated.

Minor in Rehabilitative Services**Program Requirements****Total credits required for this minor18****Required Credits — 18 semester hours**

HRS 290 Introduction to Human Services	3
HRS 385 Working with Families in Rehabilitation	3
HRS 394 Practicum in Human Services	3
HRS 480 Human Service Helping Skills	3
HRS 485 Medical/Psychological Aspects of Disability for Human Service Workers	3
HRS 490 Career Planning and Placement	3

Note that the three-hour practicum (HRS 394) should reflect the theme of the student's interest area in the minor.

Minor in School Health Education**Program Requirements****Required credits19****Required elective credits6****Total credits required for this minor25****Required Credits — 19 semester hours**

CH 205 Issues in Health	3
CH 209 Foundations of Health Promotion/Education	3
CH 238 Contemporary Issues in Drug Abuse	3
CH 303 Health in the Elementary School	1
CH 336 Human Sexuality	3
CH 342 Modern Concepts of Health and Disease	3
CH 343 Methods and Observations of Health Education	3

Required Elective Credits — 6 semester hours

Elective credits selected with consent of advisor.

Programs of Study

College of Performing and Visual Arts

Music and Music Education	205	Visual Arts	223
Musical Theatre	216	Minors	227
Theatre Arts and Dance	218		

Location: Frasier 101 **Telephone:** 970-351-2194
Acting Dean: Shirley Howell

The College of Performing and Visual Arts believes that the arts are the most powerful tools available for refining and broadening human experience. They represent beauty and order in our environment and are important to the perpetuation of our cultural heritage. The specific role of the arts at UNC is to address the aesthetic and creative potentials of students by blending theory with practical study.

The College's performing groups, artists and art works have brought regional and national recognition to UNC, as well as many opportunities for the placement of graduates in prestigious performance and educational positions.

The College of Performing and Visual Arts stresses a rigorous curriculum and maintains an annual calendar of more than 300 cultural events.

The three divisions within the College - the School of Music and the Departments of Theatre Arts/Dance and Visual Arts - provide valuable experiences for students by enabling them to demonstrate their talents through numerous exhibits, concerts, operas, musicals, recitals, dance and theatrical performances.

The college maintains Helen Langworthy Theatre, a 612-seat fully rigged theatre with production areas; Norton Theatre, an experimental space seating up to 125; and Foundation Hall, which seats 550 and is used primarily by the School of Music.

English Essay Exam

Every student must pass the English Essay Examination at the University of Northern Colorado to graduate. The requirement may not be challenged or waived. This examination must be passed at least one semester before the semester the student graduates. The scheduled examination may be taken at any point, but students are expected to take it before the end of the first semester of their junior year. The examination is evaluated on a satisfactory/unsatisfactory basis and may be retaken any number of times. There is a fee to retake the examination. Additional information can be obtained from the English Department, Michener L50, phone 970-351-1576.

School of Music

Location: Frasier Hall 105 **Telephone:** 970-351-2194
Acting Director: Rob Hallquist **Graduate Coordinator:** Robert Ehle

Professors: A. Eugene Aitken, Ph.D.; Edwin D. Baker, M.M.; R. Evan Copley, Ph.D.; Elza L. Daugherty, Ed.D.; Robert Ehle, Ph.D.; James Fittz, D.M.A.; Richard C. Fuchs, M.M.; Carl Gerbrandt, D.M.A.; Roger Greenberg, M.M.; Jack Herrick, M.M.; Shirley E. Howell, D.A.; William A. Pfund, M.M.; Kenneth Singleton, D.M.A.; Howard M. Skinner, D.Mus.; James S. Upton, Ph.D.

Associate Professors: Vergie Amendola, M.M.; H. Gray Barrier, M.M.; Charmaine Coppom, M.A.; Galen P. Darrough, D.M.A.; Rob Hallquist, D.M.A.; Errol Haun, D.M.A.; Richard Mayne, Ph.D.; Charlotte Mills, D.A.; Kathy B. Moore, Ph.D.; Thomas Poole, M.A.E.; Laura Rhoades, D.A.; Jack C. Robinson, M.M.; Juliet White-Smith, M.M.

Assistant Professors: Jonathan Bellman, D.M.A.; Diane Bolden-Taylor, M.M.; John S. Davis, M.A.; Charles Hansen, D.M.A.; C. Gregory Hurley, Ph.D.; Sharon Kimmey, D.M.A.; Lesley Manning, M.M.; Thomas G. Masse, D.M.A.

Instructor: John McLaird, M.M.

Approximately 450 music majors annually have made UNC their choice for many reasons. The School of Music offers nationally recognized faculty with specialists on every instrument, including harp, string bass, harpsichord, tuba and classical guitar. The School maintains more than 50 performing ensembles, a number of which are nationally recognized.

The UNC School of Music, with 34 full-time and eight part-time faculty, is organized into eight departments, each headed by a chairperson and five performance programs, each with a director. The departments are Brass and Percussion, History and Literature, Keyboards, Music Education, Strings, Theory and Composition, Voice and Woodwinds. The performance programs are Bands, Choirs, Opera Theatre, Orchestras and Jazz Studies.

Students may choose from a full range of degrees, bachelor through doctoral programs and from emphases in performance, conducting, pedagogy, music education, music theory, music history and music theatre. Considerable variety and depth of course offerings are available at UNC. The academic year program is augmented by a comprehensive summer schedule with a full complement of music theory, music history, music education and applied music opportunities; and with workshops in special areas such as jazz, strings, Orff Schulwerk, recorder performance, multicultural education, choral issues, music technology, conducting and many others.

In addition, UNC possesses one of the most active summer performance programs in the Rocky Mountain region. The Summer Performing Arts Program, a definite asset for undergraduate and graduate majors, offers concentrated, pre-professional performance experience and association with outstanding guest artists, conductors and clinicians.

General objectives of the University of Northern Colorado School of Music are based on service and leadership in the arts at local, state, regional and national levels.

An integral unit within the University, the School of Music embraces the role and mission statements of the University of Northern Colorado and has designed its goals and objectives to support and enhance institutional purposes and directions. The School of Music lends considerable support through its course offerings to programs in Elementary Education, Special Education and Recreation.

The primary goal of the UNC School of Music is to develop skilled and sensitive musicians at the undergraduate, master's and doctoral levels, including performers, conductors, educators, composers, historians, theorists and administrators. The UNC School of Music maintains a two-fold objective of providing the strongest preparation possible in music education, theory and history, while encouraging the highest standards of performance.

Students planning to major in music are required to submit an application to the School of Music. The music application and appropriate instructions are provided by the Admission's Office upon request, or upon receipt of an Application for Admission that specifically indicates a music major. Auditions are required of all applicants to the School of Music. Information concerning auditions may be requested from the School of Music, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970-351-2194.

School of Music graduates are well accepted in the professional world. UNC-prepared educators hold positions at universities, colleges, high schools, junior high and elementary schools throughout the United States and Canada. School of Music performance graduates are found in professional symphony orchestras, opera and musical theatre repertory companies, the nation's premier military ensembles, prominent free-lance positions in metropolitan centers and in professional chamber ensembles and jazz bands.

Individual Performance

Students with education emphasis should enroll for a half-hour lesson each week for two hours credit. Students with performance emphasis should enroll for a one hour lesson each week for four hours credit.

Performance Organizations

The music major must participate each semester in a major musical organization, in which his or her instrument normally belongs — band, orchestra or choir.

Major Musical Organizations

MUS 267/MUS 467/MUS 667 University Symphony Orchestra
 MUS 268/MUS 468/MUS 668 Chamber Orchestra
 MUS 280/MUS 480/MUS 680 Mixed Concert Choir
 MUS 281/MUS 481/MUS 681 Women's Glee Club
 MUS 284/MUS 484/MUS 684 Men's Glee Club
 MUS 287/MUS 487/MUS 687 Summer Symphonic Band
 MUS 288/MUS 488/MUS 688 Concert Band
 MUS 289/MUS 489/MUS 689 University Brass Choir
 MUS 290/MUS 490/MUS 690 Symphonic Band
 MUS 291/MUS 491/MUS 691 Wind Ensemble
 MUS 297/MUS 497/MUS 697 Summer Festival Orchestra

Graduate Admission

Admission to the Graduate School does not guarantee admission to the School of Music. Prerequisite to admission to any graduate program in Music is completion of an appropriate undergraduate degree. Admission will be based on an evaluation of the student's competencies and the content of the undergraduate program.

Theatre Arts and Dance Department

Location: Frasier Hall 108 **Telephone: Theatre Arts:** 970-351-2194
Chair: Thomas P. McNally **Dance:** 970-351-2597

Professors: Sandra Minton, Ph.D.; Thomas McNally, M.F.A.

Associate Professors: Karen Genoff-Campbell, M.A.; Raymond V. Fulkerson, M.A.; Ronald B. Gloekler, M.A.; Daniel G. Guyette, M.F.A.; Jeffrey Marc Rockland, M.F.A.

Assistant Professors: Heather Hollingsworth, M.F.A.; Mary Martin, M.A.; Sheldon R. Wilhelm, M.F.A.

Instructor: Charles Houghton, M.F.A.

UNC's Theatre Arts program combines classroom instruction with first-hand experiences in the Little Theatre of the Rockies (LTR), established in 1934. In addition to theatre productions, LTR serves as the production entity for Opera Theatre and provides technical support, scenes, costumes, stage direction, choreography, promotion and general management for UNC's popular Performing Arts Series.

During the summer, the College of Performing and Visual Arts presents the Little Theatre of the Rockies and Concerts Under the Stars events. LTR Summer company members are involved in acting and technical aspects of professional theatre, working under the excitement of a rigorous production schedule. As participants, they encounter a wide variety of opportunities to observe, learn from and share ideas with an experienced faculty, professional actors, singers and technicians.

General objectives of the University of Northern Colorado Department of Theatre Arts and Dance are based on service and leadership in the arts at local, state, regional and national levels. An integral unit within the University, the Department embraces the role and mission of the University and has designed its goals and objectives to support and enhance institutional purposes and directions.

Students planning to major in Musical Theatre are required to submit an additional application to the Musical Theatre Program. The application and appropriate instructions are provided by the College of Performing and Visual Arts. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970-351-2194.

Transfer students planning to major in Musical Theatre are required to submit a separate application to the Musical Theatre Program. The College of Performing and Visual Arts provides a Musical Theatre application and instructions when receiving an inquiry or an Application for Admission that specifies a Musical Theatre major. Auditions are required of all applicants to the Musical Theatre Program. Information concerning auditions may be requested from Vance Fulkerson, Coordinator of Musical Theatre Program, University of Northern Colorado, Frasier Hall, Greeley, Colorado 80639, phone 970-351-2194.

Visual Arts Department

Location: Guggenheim Hall **Telephone:** 970-351-2143/2477
Chair: Richard S. Munson

Professors: Betty E. Carlisle, Ed.D.; Michael A. Coronel, M.A.; Virginia Jenkins, M.F.A.; Dennis Morimoto, Ed.D.; Richard S. Munson, Ph.D.

Associate Professors: Ira E. Hoffman; Richard C. Luster, M.F.A.; Margaret Sunday, M.F.A.; Anna Ursyn, Ph.D.

Assistant Professor: Thomas Stephens, M.F.A.

The Department of Visual Arts offers the opportunity to study the artistic aspects of our heritage, our culture, visual communications and personal artistic expression, as well as the arts of other cultures and civilizations. It is the purpose of the department to provide a comprehensive education in the visual arts through studio practice, art history, cultural studies and critical studies.

Students learn to produce works of art in a variety of media and to understand the processes of various art forms as they relate to personal expression and professional application. Through the programs of the Art Department, students learn to analyze and make reasoned, critical judgments about the significance and quality of works of art. This approach gives students an excellent background for recognizing and understanding art in context, which is necessary preparation for the many careers in the visual arts.

Bachelor of Arts in Music Emphasis in Liberal Arts

Program Requirements	
Required credits	52
Required elective credits in Music	6
Required Foreign Language credits	10
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Required minor outside Music with minimum credits	18
Total credits required for this degree	120

The Bachelor of Arts degree with a major in music is a program designed for the study of music within a liberal arts curriculum. It emphasizes broad coverage of the field of music, including coursework in music theory and literature and the development of performance skills and competencies.

The degree provides an appropriate background for prospective candidates for advanced degrees who are preparing for such careers as musicologists, composers and music librarians.

Required Credits — 52 semester hours	
MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2

Bachelor of Music Emphasis in Instrumental Performance

Program Requirements	
Required credits	78
Required elective credits in Music	8
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Total credits required for this degree	120

The Bachelor of Music degree is the initial professional degree in music. Its primary emphasis is on development of the skills, concepts and sensitivity essential to the professional life of a musician.

The degree prepares performers at a professional level. It also prepares them for advanced work in graduate school.

Required Credits — 78 semester hours	
MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2
<i>Select four credits, in consultation with advisor, from the following:</i>	<i>4</i>
MUS 160 Beginning Class Piano I (1)	
MUS 161 Beginning Class Piano II (1)	
MUS 260 Intermediate Class Piano I (1)	
MUS 261 Intermediate Class Piano II (1)	
MUS 271 Individual Performance in Piano (2-4)	
MUS 471 Individual Performance in Piano (2-4)	
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3

MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3
MUS 301 18th Century Counterpoint	2
MUS 302 Form and Analysis	2
Individual Performance	16
Major Musical Organizations	8

Required Elective Credits in Music — 6 semester hours

Required Foreign Language Credits — 10 semester hours

Notes

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

Two foreign language courses may count toward General Education requirements and electives in the content area.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Students must take Individual Performance and Major Musical Organizations during each semester in residence.

MUS 301 18th Century Counterpoint	2
MUS 302 Form and Analysis	2
MUS 303 Instrumentation	2
MUS 307 History of Instruments and Instrumental Practice	3
MUS 319 Instrumental Techniques and Conducting	1
MUS 403 Acoustics of Music	2
<i>Select two credits from the following:</i>	<i>2</i>
MUS 426 Orchestral Excerpts: Percussion (1)	
MUS 427 Orchestral Excerpts: Strings (1)	
MUS 428 Orchestral Excerpts: Brass (1)	
MUS 429 Orchestral Excerpts: Woodwinds (1)	
Major Musical Organization (Minimum)	8
Individual Performance (Minimum)	28

Required Elective Credits in Music — 8 semester hours

A minimum of two credits must be in the major area.

Notes

Students must take Individual Performance and Major Musical Organization during each semester in residence.

String Majors will take either Small Ensembles or Chamber Orchestra in lieu of electives in consultation with an advisor.

Woodwind Majors will take 4 hours of Small Ensemble and 4 hours of electives in consultation with an advisor.

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Bachelor of Music Emphasis in Piano

Program Requirements

Required credits in Music	84
Required elective credits in Music	3
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Total credits required for this degree	121

The Bachelor of Music degree is the initial professional degree in music. Its primary emphasis is on development of the skills, concepts and sensitivity essential to the professional life of a musician.

The program prepares performers at a professional level or to enter graduate school in the same area of emphasis.

Required Credits — 84 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3

MUS 301 18th Century Counterpoint	2
MUS 302 Form and Analysis	2
MUS 323 Choral Techniques and Conducting	2
MUS 348 Accompanying and Coaching I	2
MUS 349 Accompanying and Coaching II	2
MUS 352 353 Principles of Piano Teaching I, II	4
MUS 403 Acoustics of Music	2
MUS 415 Keyboard Literature I	2
MUS 416 Keyboard Literature II	2
MUS 454 Pedagogical Approaches to Keyboard Literature	4
Individual Performance in Piano	28
Major Musical Organizations	8

Required Elective Credits in Music — 3 semester hours

Notes

Students must take Individual Performance and Major Musical Organization during each semester in residence.

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Bachelor of Music Emphasis in Theory and Composition

Program Requirements

Required credits	76-80
Required elective credits in Music	10
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Total credits required for this degree	120-124

The Bachelor of Music degree is the initial professional degree in music. Its primary emphasis is on development of the skills, concepts and sensitivity essential to the professional life of a musician.

The program prepares theorists and composers at a professional level. It also prepares them for advanced work in graduate school.

Required Credits — 76-80 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2
<i>Select 8-12 credits, in consultation with advisor, from the following: 8-12</i>	
MUS 160 Beginning Class Piano I (1)	
MUS 161 Beginning Class Piano II (1)	
MUS 260 Intermediate Class Piano I (1)	
MUS 261 Intermediate Class Piano II (1)	
MUS 271 Individual Performance in Piano (2-4)	
MUS 471 Individual Performance in Piano (2-4)	
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3
MUS 277 Individual Instruction in Composition	8
MUS 477 Individual Instruction in Composition	8
MUS 301 18th Century Counterpoint	2
MUS 302 Form and Analysis	2
MUS 303 Instrumentation	2

MUS 319 Instrumental Techniques and Conducting	1
MUS 323 Choral Techniques and Conducting	2
MUS 403 Acoustics of Music	2
MUS 422 Directed Studies (Form and Analysis)	3
MUS 422 Directed Studies (Electronic Music)	3
MUS 422 Directed Studies (Pedagogy of Theory)	3
Major Musical Organizations	8

Required Electives in Music — 10 semester hours

Notes

Students must take individual instruction in composition each semester after being admitted to the program.

Students must take major ensemble during each semester in residence.

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

Six semesters of piano are required. Levels are to be determined by advisement.

Students seeking admission to this program must have completed MUS 201 and MUS 202 with minimum grades of "B." They must submit copies of their written compositions for evaluation by their theory/composition faculty. This process will normally take place at the end of the sophomore year.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Students are admitted as undergraduate majors to the theory/composition program only after an audition, interview and thorough assessment of a portfolio of their compositions by the faculty of the theory department. Students seeking this major must demonstrate adequate keyboard skills as well as advanced skills in musical analysis and composition. Theory/composition majors at the undergraduate level must have either keyboard, vocal or instrumental performance competence equivalent to that expected of a Bachelor of Arts student.

Bachelor of Music

Emphasis in Voice Performance

Program Requirements

Required credits	80-84
Required Foreign Language credits	18
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Total credits required for this degree	132-136

The Bachelor of Music degree is the initial professional degree in music. Its primary emphasis is on development of the skills, concepts and sensitivity essential to the professional life of a musician.

The degree prepares performers at a professional level. It also prepares them for advanced work in graduate school.

Required Credits — 80-84 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3
MUS 301 18th Century Counterpoint	2
MUS 302 Form and Analysis	2
Select four credits, in consultation with advisor, from the following:	4-8
MUS 160 Beginning Class Piano I (1)	
MUS 161 Beginning Class Piano II (1)	
MUS 260 Intermediate Class Piano I (1)	
MUS 261 Intermediate Class Piano II (1)	
MUS 271 Individual Performance in Piano (2-4)	
MUS 471 Individual Performance in Piano (2-4)	

Select four credits, in consultation with advisor, from the following:

MUS 285 Performance in Opera Theatre (1-3)	4
MUS 485 Performance in Opera Theatre (1-12)	
MUS 286 Scene Studies in Opera (1-3)	
MUS 486 Scene Studies in Opera (1-3)	
Note that placement in the above courses is by audition.	
MUS 323 Choral Techniques and Conducting	2
MUS 410 Vocal Pedagogy	2
MUS 444 English Diction	1
MUS 445 German Diction	1
MUS 446 French Diction	1
MUS 447 Italian Diction	1
Major Musical Organization	8
Individual Performance	28

Required Foreign Language Credits — 18 semester hours

Two foreign language courses may count toward General Education requirements and electives in the content area.

Notes

Placement in MUS 285/MUS 485 or MUS 286/MUS 486 is by audition and advisement. Four semesters required.

Students must take Individual Performance and Major Musical Organization during each semester in residence.

MUS 100 Recitals, Concerts and Productions must be taken each semester in residence.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Bachelor of Music Education

Emphasis in Instrumental Music Education

Program Requirements

Required Music Courses (Includes 6 credits: MUS 243 and MUS 244 that are general education category 4b courses)	52
Pre-professional courses (SPCO 100, SPCO 103)	3
General Education credits:	
6 credits already included in requirements above	
Remaining	34
Professional Teacher Education Courses (PTEP)	23
Music K-12 Professional Teacher Education Courses	16
Total credits required for this degree	128

The Bachelor of Music Education degree emphasizes competencies in basic musicianship and professional education and breadth of general studies, with attention to attitudes relating to human considerations and to social, economic and cultural components that give individual communities their identity.

The degree program assists students in becoming broadly based, knowledgeable and skilled school music educators with licensure to teach Music K-12.

Required Professional Teacher Education Courses — 23 semester hours

EDFE 270 Field Based Experiences	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling	4
EDSE 410 Exceptional Students In the Regular Classroom	2
EDRD 425 Reading in Content Areas	1
EDFE 444 Supervised Teaching	12

Required Music Professional Teacher Education Courses — 16 semester hours

Instrumental Emphasis (B.M.E.)	
MUS 210 Introduction to Music Education	1
MUS 310 Teaching General Music in Elementary Schools	2
MUS 311 Teaching General Music in Secondary Schools	2
MUS 312 Teaching Instrumental Music in Elementary Schools	2
MUS 317 Teaching Instrumental Music in Secondary Schools	2
MUS 325 Choral Methods & Literature for Elementary/Secondary Schools	1
MUS 331 String Pedagogy & Literature for Instrumental Teachers	2
MUS 356 Marching Band Techniques	1
MUS 414 Contemporary Issues in Music Education	2
MUS 450 Seminar in Student Teaching for Music Educators	1

Required Music Courses — 52 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	3
MUS 319 Instrumental Techniques and Conducting	1
MUS 320 Wind Literature, Pedagogy and Conducting	2
MUS 330 String Techniques	1
MUS 360 Voice Class	1
MUS 361 Clarinet and Saxophone Class	1
MUS 362 Double Reed and Flute Class	1
MUS 364 Brass and Percussion Class	2
<i>Select two credits from the following (Wind and Percussion Majors):</i>	
MUS 292 Marching Band	1
MUS 492 Marching Band	1
Individual Performance	14
Major Musical Organizations	7

Notes

Students must enroll in individual performance, major musical organizations, and MUS 100-Recitals, Concerts and Productions for seven semesters.

Demonstrate proficiency in functional piano. Each entering student must schedule a conference/audition with the piano faculty to determine proficiency level and recommendations for further study, if any.

Each entering student must demonstrate knowledge of music literature and styles by examination. Students will receive recommendations for further study dependent upon examination results.

Music Education students are encouraged to enroll in non-required music courses to increase their knowledge base and skills toward becoming a music teacher, i.e., accompanying, counterpoint, diction, ensembles, form and analysis, instrumentation, jazz pedagogy, music education methods, perceiving the arts, and upper division music history courses.

The senior recital must be performed during a semester other than the student teaching semester.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

In addition to requirements for admission to the Professional Teacher Education Program as established by the Professional Education Council, music education students must meet the following departmental requirements:

- Demonstrate an acceptable level of performance on the major instrument. Evaluation will be through jury examinations conducted by music faculty and scheduled performances in the weekly recital series.
- Attain a minimum grade of "C" in the following required music theory courses: MUS 101, MUS 102 and MUS 201 and receive a minimum overall cumulative grade point average of 2.50 in these three courses. A student who is not in compliance with the GPA criterion for music theory courses listed above may petition in writing for further consideration through the Music Education and Music Theory Departments (As per University policy, a student may repeat MUS 101, 102, or 201 as many times as desired, with the understanding that the grade for each course repeated will be calculated by the Registrar as part of the student's GPA; however, the number of credits per course toward graduation will be used only once. For Departmental purposes, the highest grade for each of the music theory courses listed above will be used to calculate the music theory GPA.)
- Demonstrate professional promise as a teacher to the satisfaction of the music education faculty, including an interview with the faculty at the conclusion of MUS 210 Introduction to Music Education.
- Meet all music performance and recital attendance requirements listed in the respective departmental handbooks.
- Continue to show professional growth in becoming a music teacher.
- Failure to meet the criteria listed above will result in either provisional or denial of admission to the PTEP Program.

Bachelor of Music Education

Emphasis in Vocal, Piano and General Music Education

Program Requirements

Required Music Courses (includes 6 credits: MUS 243, MUS 244 that are general education category 4b courses)	49-53
Pre-Professional Courses (SPCO 100, SPCO 103)	3
General Education credits:	
6 credits already included in requirements above and the PTEP program	
Remaining	34
Professional Teacher Education Courses (PTEP)	23
Music K-12 Professional Education Courses	13
Total credits required for this degree	122-126

The Bachelor of Music Education degree emphasizes competencies in basic musicianship and professional education and breadth of general studies, with attention to attitudes relating to human considerations and to social, economic and cultural components that give individual communities their identity.

The degree program assists students in becoming broadly based, knowledgeable and skilled school music educators with licensure to each music K-12.

Required PTEP Credits — 23 semester hours

EDFE 270 Field Based Experiences	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling	4
EDSE 410 Exceptional Students in the Regular Classroom	2
EDRD 425 Reading in Content Areas	1
EDFE 444 Supervised Teaching	12

Required Music K-12 PTEP Credits — 13 semester hours

Vocal/Piano/General Music Emphasis — (B.M.E.)	
MUS 210 Introduction to Music Education	1
MUS 310 Teaching General Music in Elementary Schools	2
MUS 311 Teaching General Music in Secondary Schools	2
MUS 312 Teaching Instrumental Music in Elementary Schools	2
MUS 324 Choral Conducting and Pedagogy for Elementary and Secondary Schools	2
MUS 325 Choral Methods and Literature for Elementary and Secondary Schools	1
MUS 414 Contemporary Issues in Music Education	2
MUS 450 Seminar in Student Teaching for Music Educators	1

Required Music Credits — 49-53 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 201 Advanced Sight-Singing and Theory I	3
MUS 202 Advanced Sight-Singing and Theory II	3
MUS 243 History of Music I	3
MUS 244 History of Music II	4
Select four credits from the following:	4
MUS 269 Individual Performance in Voice (Piano Majors)	
MUS 469 Individual Performance in Voice (Piano Majors)	
MUS 314 Guitar in the Classroom	1
MUS 323 Choral Techniques and Conducting	2
MUS 330 String Techniques	1
MUS 359 Woodwind Class	1
MUS 367 Materials and Techniques for Brass and Percussion	1
MUS 410 Vocal Pedagogy (Piano Majors only)	2
Individual Performance	14
Major Musical Organizations	7

Notes

Students must enroll in individual performance, major musical organizations and MUS 100 Recitals, Concerts and Productions for seven semesters.

Demonstrate proficiency in functional piano. Each entering student must schedule conference/audition with the piano faculty to determine proficiency level and recommendations for further study, if any.

Each entering student must demonstrate knowledge of music literature and styles by examination. Students will receive recommendations for further study dependent upon examination results.

Music Education students are encouraged to enroll in non-required music courses to increase their knowledge base and skills toward becoming a music teacher, i.e., accompanying, counterpoint, diction, ensembles, form and analysis, instrumentation, jazz pedagogy, music education methods, perceiving the arts, and upper division music history courses.

The senior recital must be performed during a semester other than the student teaching semester.

MUS 100 recitals, concerts and productions must be taken for seven semesters.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category the other as an elective in the content area.

In addition to requirements for admission to the Professional Teacher Education Program as established by the Professional Education Council, music education students must meet the following departmental requirements:

- Demonstrate an acceptable level of performance on the major instrument. Evaluation will be through jury examinations conducted by music faculty and scheduled performances in the weekly recital series.
- Attain a minimum grade of "C" in the following required music theory courses: MUS 101, MUS 102, MUS 201 and receive a minimum overall cumulative grade point average of 2.50 in these three courses. A student who is not in compliance with the GPA criterion for music theory courses listed above may petition in writing for further consideration through the Music Education and Music Theory Departments. (As per University policy, a student may repeat MUS 101, MUS 102 or MUS 201 as many times as desired, with the understanding that the grade for each course repeated will be calculated by the Registrar as part of the student's GPA; however, the number of credits per course toward graduation will be used only once. For departmental purposes, the highest grade for each of the music theory courses listed above will be used to calculate the music theory GPA.)
- Demonstrate professional promise as a teacher to the satisfaction of the music education faculty including an interview with the faculty at the conclusion of MUS 210 Introduction to Music Education.
- Meet all music performance and recital attendance requirements listed in the respective departmental handbooks.
- Continue to show professional growth in becoming a music teacher.
- Failure to meet the criteria listed above will result in either provisional or denial of admission to the PTEP program.

Bachelor of Music Education and Bachelor of Music Combined Emphasis in Instrumental Music Education and Performance

Program Requirements

Required credits for the Bachelor of Music Education Degree (listed previously)	52
Required credits for the Bachelor of Music Degree	29
Pre-Professional courses SPCO 100 and SPCO 103)	3
General Education credits: 6 credits already included in requirements above Remaining	34
Professional Teacher Education Courses (PTEP)	23
Music K-12 PTEP Courses	16
Total credits required for this degree	157

The Bachelor of Music Education and Bachelor of Music Combined degree program is designed for the student with outstanding musical talent and the desire to teach. The combined degree emphasizes excellence in basic musicianship and professional education and breadth of general studies, with attention to attitudes relating to human considerations and to social, economic and cultural components that give individual communities their identity.

The degree program assists students in becoming broadly based, knowledgeable and skilled school music educators with licensure to teach at the elementary or secondary levels in Instrumental music and/or a career in performance.

Required Credits — 29 semester hours

MUS 100 Recitals, Concerts and Productions	0
MUS 307 History of Instruments and Instrumental Practice	3
MUS 403 Acoustics of Music	2
Individual Performance (additional)	14
Major Musical Organizations (additional)	7

Notes

This is a combined degree program and requires a minimum of five academic years, attending full-time, to complete.

Complete the requirements for the Bachelor of Music Education degree emphasis in Instrumental Music.

Complete performance and organization/ensemble requirements for the Bachelor of Music degree.

Present a complete graduation recital.

Meet all music performance and recital attendance requirements of the specific department of emphasis.

MUS 243 and MUS 244 may count toward General Education requirements; one for the Fine Arts category, the other as an elective in the content area.

Master of Music Emphasis in Choral Conducting

Program Requirements

Complete the required credits specified here	32
Complete the program electives specified here	4

The Master of Music degree program is designed to assist the graduate candidate in developing advanced professional competencies in choral conducting.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the candidate must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

Required Credits — 32 semester hours

MUS 550 Score Reading and Analysis	1
MUS 600 Introduction to Musical Scholarship	2
MUS 653 Vocal Literature and Styles	3
MUS 685 Performance in Opera Theatre	2
MUS 693 Practicum in Music	4
Individual Performance in Voice	4
Individual Performance in Conducting	2
Major Performing Organization	2
<i>Studies in Music History and Theory</i>	
Music History	6
Music Theory	6

Note that studies in Music History and Theory will be selected by advisement based upon candidate's needs identified through advisory examination.

Recommended Electives — 4 semester hours

MUS 559 Opera and Oratorio Literature	2
MUS 650 Seminar: Choral Music	2

Note that the courses above are recommended. Elective courses should be selected by advisement based upon the candidate's specific needs and interests.

Notes

A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and vocal faculty. It is the student's responsibility to file a printed program and tape recording of the performance with the School of Music office and the Music Library.

The prospective choral conducting applicant should have had at least two years of experience in high school teaching or equivalent experience before applying for graduate studies. A personal audition is required.

Conducting applicants should write to the appropriate director for specific information concerning audition and interview procedures.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of their course program.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

Master of Music Emphasis in Instrumental Performance

Program Requirements

Complete the required credits specified here22-23
Complete program electives specified here7-8

The Master of Music degree program is designed to assist the graduate student in developing advanced professional competencies in instrumental performance.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Brass, woodwind, string and percussion majors will take a written examination on instrumental techniques in their instrument area. Students with deficiencies identified by advisors and their audition will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

Required Credits — 22-23 semester hours

<i>Studies in the Major Area</i>	
MUS 600 Introduction to Musical Scholarship	2
MUS 693 Practicum in Music (Recital and Correlative Paper)	2
Individual Performance	8
Major Performing Organization	2
Note that string performers will participate in a major ensemble each semester in residence.	
<i>Other Studies in Music</i>	
Music History, Music Theory	6

Master of Music Emphasis in Music History and Literature

Program Requirements

Complete the required credits specified here30
Complete the program electives specified here1-4

The Master of Music degree program is designed to assist the graduate student in developing advanced professional competencies in music history and literature.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the candidate must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies.

Prerequisites

Students entering this area of emphasis must have the equivalent of an undergraduate music major as outlined in this Bulletin.

Students will be expected to demonstrate translational competency in German, French, or Latin as a prerequisite to candidacy.

Required Credits — 30 semester hours

MUS 600 Introduction to Musical Scholarship	2
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Pedagogy2-3
Note that Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

Elective Credits — 7-8 semester hours

Electives will be selected by advisement based upon candidate's needs identified through examination.

Notes

Master of Music candidates in performance must present a public recital. This recital should be recorded and a printed program and tape recording should be filed with the School of Music office and the Music Library.

A correlative paper may be required in conjunction with the recital at the discretion of the individual department.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of the course program.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

Performance emphases are available in bassoon, clarinet, flute, harp, horn, oboe, percussion, keyboard, saxophone, string bass, bass trombone, tenor trombone, trumpet, tuba, tenor tuba, viola, violin, violoncello and voice.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

MUS 699 Thesis	6
Music History	12
Music Theory Courses	6
Major Performing Organization and/or Individual Performance	4

Elective Credits — 1-4 semester hours

Notes

Electives will be selected by advisement, based upon candidate's needs identified through examination.

Music Theory and Music History courses are selected by advisement based on the candidate's area of focus and upon the candidate's needs identified through the advisory examination.

Students who are able to demonstrate competency in any required course may substitute an elective chosen in consultation with the advisor.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of their course program.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

Master of Music Emphasis in Theory and Composition

Program Requirements

Complete the required credits specified here33

The Master of Music degree program is designed to assist the graduate student in developing advanced professional competencies in theory and composition.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Students with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. Theory and Composition candidates must submit examples of works composed, supported if possible by recordings.

Prerequisites

Students entering this area of emphasis must have completed a Bachelor of Music, Bachelor of Music Education, or a Bachelor of Arts in Music degree.

Required Credits — 33 semester hours

MUS 509 Electronic Music	3
MUS 600 Introduction to Musical Scholarship	2
MUS 603 Analytical Studies in Music	3
MUS 648 Seminar: Music in the 20th Century	3
MUS 677 Individual Instruction in Composition	8
MUS 699 Thesis (or Original Composition)	6
Music Performing Organization and/or Individual Performance	2

Master of Music Emphasis in Vocal Performance

Program Requirements

Complete the required credits specified here28-30

Complete program electives specified here3

The Master of Music degree program is designed to assist the graduate student in developing advanced professional competencies in vocal performance.

The degree program seeks to broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Voice students must pass a diction proficiency examination in German, French and Italian. An entrance audition is required; voice students will be expected to perform one or more art songs in French, German, Italian and English, including one opera aria or oratorio aria and a contemporary art song. The entrance audition may be performed during the first semester of degree work.

Required Credits — 28-30 semester hours

<i>Studies in the Major Area</i>	
MUS 510 Vocal Pedagogy	2
or	
MUS 564 Problems in Teaching Voice	2
<i>Select two of the following courses — 4 semester hours</i>	
MUS 536 German Art Song (3)	
MUS 538 French/Italian Art Song (2)	
MUS 539 British/American Art Song (2)	
MUS 559 Opera and Oratorio Literature	2
MUS 600 Introduction to Musical Scholarship	2
MUS 685 Performance in Opera Theatre	2
and/or	
MUS 686 Scene Studies in Opera	2
MUS 693 Practicum in Music (Recital and Correlative Paper)	1-4

Studies in Music History

Music History6

Note that Studies in Music History will be selected by advisement based upon candidate's needs identified through advisory examination.

Notes

MUS 502 and MUS 503 may be required if advisors indicate that these courses will significantly increase the strength of the Master of Music program in Theory and Composition.

Students who are able to prove their competency in any of the required courses listed above may substitute electives chosen in consultation with the advisor.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of the course program.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

Master of Music candidates will present a recital of their compositions written as part of their degree program.

Individual Performance

Major Performing Organization

Other Studies in Music

Music History or Music Theory

Note that Other Studies in Music will be selected by advisement based upon candidate's needs identified through advisory examination.

Elective Credits — 3 semester hours

Notes

Master of Music students in voice must have an entrance audition.

Students in the area of Vocal Performance should have skills in translation of vocal literature in one foreign language (French, German, or Italian) as well as diction mastery of all three. A candidate may challenge any portion of the language requirement.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of the course program.

Master of Music candidates in voice must present a public recital. This recital should be recorded and a printed program and tape recording should be filed with the School of Music office and the Music Library.

A correlative paper may be required in conjunction with the recital at the discretion of the individual department.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

Master of Music Emphasis in Wind/Orchestra Conducting

Program Requirements

Complete the required credits specified here30-31

The Master of Music degree program is designed to assist the graduate candidate in developing advanced professional competencies in wind/orchestra conducting.

The degree program will broaden and deepen scholarly abilities and research and pedagogical techniques for use in the profession or for instruction in higher education.

Admission

In addition to meeting the admission requirements of the Graduate School, the candidate must take the Advisory Examinations in Music History and Literature, Music Theory and writing skills. Candidates with deficiencies will meet with their major advisor and other appropriate faculty to determine the best way to address the deficiencies. An entrance audition is required.

Prerequisites

The prospective instrumental conducting applicant should have had at least two years of experience in high school teaching or equivalent experience before applying. A personal audition is required.

Required Credits — 30-31 semester hours

Select one of the following:	2
MUS 511 History and Literature of the Wind Band (winds) (2)	
MUS 512 Symphonic Repertoire (orchestral) (2)	
MUS 550 Score Reading and Analysis	1
Select one of the following:	2-3
MUS 580 String Techniques for the Conductor (2)	
MUS 658 Brass Pedagogy (3)	
MUS 661 Percussion Pedagogy (2)	
MUS 662 Woodwind Pedagogy (2)	

Master of Music Education

Program Requirements

Complete the required core components specified	12
Complete credits in music studies	10
Complete program electives specified here	8

The Master of Music Education degree program is designed to develop and enrich professional understandings, skills, musical and pedagogical competencies in the field of music education.

Admission

The incoming student must meet admission requirements of the Graduate School. The candidate must have completed an undergraduate degree in music or music education. Other candidates may be accepted upon petition to the Music Education Department.

Core Components — 12 semester hours

<i>Studies in the Major Area</i>	
MUS 519 Foundations of Music Education	3
MUS 533 Curriculum Trends in Music Education	3
MUS 610 Research in Music Education	3
Studies in Professional Education to be selected from the following content areas such as: Multicultural Education, Educational Psychology, Educational Foundations or Special Education	3

MUS 600 Introduction to Musical Scholarship	2
MUS 693 Practicum in Music	3
Individual Performance in Conducting	4
Individual Performance (major instrument)	2
Major Performing Organization	2
Note that orchestra conductors must take MUS 580/String Techniques for the Conductor (2 hours). MUS 658/Brass Pedagogy, MUS 661/Percussion Pedagogy, MUS 662/Woodwind Pedagogy are taken with advisement.	
<i>Studies in Music History and Theory</i>	
Music History	6
Music Theory	6
Note that Studies in Music History and Theory will be selected by advisement based upon candidate's needs identified through advisory examination.	

Notes

All graduate students enrolling in the School of Music as majors are expected to attend major recitals, concerts, productions and convocations on a regular basis as part of their course program.

A recorded public recital and correlative paper are required. The performance will be conducted by the candidate and evaluated by the major advisor and instrumental faculty. It is the student's responsibility to file a printed program and tape recording of the performance with the School of Music office and the Music Library.

Conducting applicants should write to the appropriate director for specific information concerning audition and interview procedures.

"Residency," when stated in the music section of this Bulletin, is interpreted to mean 10 credit hours or more per semester.

Master of Music candidates will take a written comprehensive examination at a time approved by the major advisor.

Credits in Music Studies — 10 semester hours

To be selected in consultation with program advisor	10
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Elective Credits in Music and other areas — 8 semester hours

Note that courses should be based upon the candidate's specialized teaching area and professional goals.

Notes

Incoming Master of Music Education candidates will be asked to write an advisory examination on topics related to music education.

The Music Education department will consider examinations, scholarly papers and musical performance in all areas of study to assess student progress throughout the program.

Master of Music Education candidates will write a comprehensive examination at a time approved by the major advisor.

Doctor of Arts in Music

Emphases in: Conducting, History and Literature, Music Performance, Music Theory and Composition, Performance and Pedagogy

Program Requirements

Complete the required credits specified here55-59
 Complete program electives11

The Doctor of Arts degree provides options for advanced study in the areas of music history and literature, theory and composition, music performance, conducting or performance and pedagogy.

This degree program is designed to prepare professional, academically well-qualified teaching scholars at the college and university level.

Admission

In addition to meeting the admission requirements of the Graduate School, the student must take the Advisory Examinations in Music History and Music Theory, administered by the School of Music faculty upon the student's arrival on campus. Students with an emphasis in brass, woodwind, string or percussion will be required to take written examinations on technique in their performance areas. An audition in the major applied area is also required. Additional coursework may be required depending on the results of the advisory examinations.

Required Credits — 55-59 semester hours

ID 702 Teacher in the College Community	3
MUS 623 Individual Studies in Effective Teaching	3
MUS 700 Introduction to Doctoral Research	3
MUS 794 Supervised Practicum in College Teaching	2-6
MUS 797 Doctoral Proposal Research	4
MUS 799 Doctoral Dissertation	12

Note that the hours allotted to the doctoral dissertation may be divided between performance and dissertation requirements according to the degree plan as outlined and approved by the candidate's committee.

Primary Emphasis — 18 semester hours

The primary area develops a major scholarly and/or performing function for the college and university level in Music History and Literature, Theory and Composition, Music Performance, Conducting, or Performance and Pedagogy. Courses are selected by advisement based upon candidate's area of focus and upon the candidate's needs identified through the advisory examination.

Secondary Emphasis — 10 semester hours

This area develops a secondary scholarly and/or performing emphasis in one of the degree emphasis areas (Music History and Literature, Theory and Composition, Music Performance, Conducting, Performance and Pedagogy), or in Jazz Pedagogy, Music Education, Opera/Theatre, or related areas outside Music. It is normally expected that a creative project of some type will be

undertaken as part of the concentration. The concentration area and its courses are selected by the candidate with the approval of the program advisor and the advisor for the Secondary Area of Concentration.

Elective Credits — 11 semester hours

Notes

Performance and Conducting majors will perform two recitals for 8 semester hours and complete a four semester hour dissertation. Performance and Pedagogy majors will perform one recital for four semester hours and complete an eight-hour dissertation. Students seeking the D.M.E. in Music Education or the D.A. in Music History and Literature or Theory and Composition will complete a 12-hour dissertation.

Doctor of Arts Majors in Theory and Composition and Secondary Emphasis students in Theory and Composition will present a recital of their composition written as part of their degree program.

A reading knowledge of one foreign language (French, German or Italian) is required by the following areas: Brass, History and Literature (a second language may be required through advisement), Piano, Strings, Theory and Composition, Vocal, Woodwinds and Instrumental Conducting. Students in the areas of Choral Conducting and Vocal Performance should have skills in translation of vocal literature in one foreign language (French, German or Italian) as well as diction mastery of all three. In the woodwind area, a substitute research tool may be permitted after consultation and approval by the candidate's committee. Students should contact the Graduate Coordinator or appropriate department to clarify language requirements.

The candidate must complete two consecutive semesters (minimum of 10 semester credit hours per semester) of graduate work on the University of Northern Colorado campus in order to satisfy the Doctor of Arts residency requirement.

The Program Advisor or Graduate Coordinator will provide information concerning how the student's oral and research committees are formed, the student's responsibility in the committee process and the means of scheduling comprehensive examinations and the doctoral defense.

Doctor of Arts in Music candidates will take written and oral comprehensive examinations at a time approved by the major advisor.

For additional information, see "Doctor of Arts Sequence and Check List" published by the School of Music.

Doctor of Music Education

Program Requirements

Complete the required credits specified here53
 Complete program electives specified here13

The Doctor of Music Education degree program emphasizes philosophy, psychology, contemporary and past history, research and includes scholarship and musicianship through study in the areas of music history and literature, theory, composition and performance.

This degree program places primary emphasis on a comprehensive working knowledge of contemporary music education practices in public schools and college music programs and community cultural life.

Required Credits — 53 semester hours

MUS 700 Introduction to Doctoral Research3
 MUS 797 Doctoral Proposal Research4
 MUS 799 Doctoral Dissertation12

Primary Emphasis

MUS 519 Foundations of Music Education3
 MUS 533 Curriculum Trends in Music Education3
 MUS 610 Research in Music Education3
 MUS 622 Directed Study in Music Education3
 SRM 602 Statistical Methods I3
 SRM 603 Statistical Methods II3
 EDF 640 Psychological Foundations of Education3
 EDF 685 Philosophical Foundations of Education3
 Secondary Emphasis10

Elective Credits — 13 semester hours

Electives will be selected by advisement based on candidate's needs identified through advisory examination and special interests. Electives may be selected

from courses offered by the School of Music, or from areas outside of music, such as Educational Administration, Special Education or Psychology.

Notes

In addition to meeting the admission requirements of the Graduate School, the student must take the Advisory Examinations in Music Education, Music History and Music Theory, administered by the School of Music faculty upon the student's arrival on campus. Students with an instrumental emphasis will be required to take written examinations on technique in their performance area. An audition in the major applied area and three letters of recommendation are also required. A minimum of two years public school teaching experience is required.

The dissertation should include goals such as extension of the student's knowledge and improvement of his teaching ability in the field, development of new knowledge that will contribute to Music Education and implementation of Music Education theory to the practical aspects of ongoing school music programs.

Secondary Emphasis courses may be selected from courses offered by the School of Music, or from areas outside of music, such as Educational Administration, Special Education or Psychology. A project integrating one or more subject areas with Music Education will be part of the secondary emphasis expectation. The project is given on a directed study basis and may be extended into the framework of the dissertation.

Doctor of Music Education candidates will take written and oral comprehensive examinations at a time approved by the major advisor.

Bachelor of Arts in Musical Theatre Emphasis in Acting

Program Requirements

Required credits	85
General Education credits:	
3 credits already included in requirements above	
Remaining	37
Total credits required for this degree	122

A Bachelor of Arts in Musical Theatre prepares students for professional careers in musical theatre. This program is intended to produce the highest achievement possible in the level of performance of the actor/singer/dancer through study of theatrical skills, musical skills and dance and movement skills.

The Bachelor of Arts in Musical Theatre, with an emphasis in acting, prepares students to perform professionally in a variety of musical theatre styles.

Required Credits — 85 semester hours

DNCE 166 Ballet	4
or	
DNCE 180 Intermediate Ballet	4
DNCE 170 Jazz Dance	2
or	
DNCE 181 Intermediate Jazz	2
DNCE 175 Tap Dance	1
or	
DNCE 183 Intermediate Tap	1
MT 260 Acting in Musical Theatre	3
MT 285 Performance in Musical Theatre	2
or	
MT 485 Performance in Musical Theatre	2
MT 330 History of Musical Theatre	3
MT 342 Workshop in Directing/Choreography of Musical Theatre	3
MT 360 Scene Study in Musical Theatre	3
MT 370 Musical Theatre Dance	2
MT 465 Musical Theatre Workshop	3
MT 470 Senior Project in Musical Theatre	3

Music Performance/Vocal Ensemble	4
MUS 101 Sight-Singing and Theory I	4
MUS 160 Beginning Class Piano I	1
MUS 160 Beginning Class Piano II	1
MUS 269 Individual Performance/Voice	4
MUS 469 Individual Performance/Voice	4
MUS 360 Voice Class	4
MUS 407 Individual Coaching in Musical Theatre	2
(MT 465 and MUS 407 must be taken concurrently)	
THEA 100 Individual Performance in Theatre	4
(One semester must be crew work, one semester must be performance in a non-musical.)	
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 190 Stage Speech I	1
THEA 191 Stage Speech II	1
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 260 Scene Study	2
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1
THEA 360 Advanced Acting Styles I	2
THEA 361 Advanced Acting Styles II	2
THEA 370 Stage Combat	2
THEA 464 Auditioning Techniques	2

Note

Admission to the Bachelor of Arts with a major in the Musical Theatre Program is by audition. Students pursuing the degree must meet the following requirements:

- Complete 40 hours of General Education.
- MT 330 may be used as part of the 40 hours of General Education.
- Meet all recital and production attendance requirements.
- Complete the required courses as listed above.
- Meet annual juried audition (assessment) requirements.

Bachelor of Arts in Musical Theatre Emphasis in Dance

Program Requirements

Required credits	86
General Education credits:	
3 credits already included in requirements above	
Remaining	37
Total credits required for this degree	123

A Bachelor of Arts in Musical Theatre prepares students for professional careers in musical theatre. This program is intended to produce the highest achievement possible in the level of performance of the dancer/singer/actor through study of dance and movement skills, musical skills and theatrical skills.

The Bachelor of Arts in Musical Theatre, with an emphasis in dance prepares students to perform professionally in a variety of musical theatre styles.

Required Credits — 86 semester hours

DNCE 167 Intermediate Ballroom	1
or	
PE 169 Gymnastics	1
DNCE 180 Intermediate Ballet	2
DNCE 181 Intermediate Jazz	2
DNCE 175 Tap Dance	1
DNCE 183 Intermediate Tap	1
DNCE 292 Advanced Ballet	3
DNCE 293 Advanced Jazz Dance	4
DNCE 296 Beginning Choreography and Improvisation	2
DNCE 354 Dance Performance	4
DNCE 454 Dance History and Philosophy	2
KINE 220 Anatomical Kinesiology	3
MT 260 Acting in Musical Theatre	3
MT 285 Performance in Musical Theatre	2
MT 485 Performance in Musical Theatre	2

MT 330 History of Musical Theatre	3
MT 342 Workshop in Directing/Choreography in Musical Theatre	3
MT 360 Scene Study in Musical Theatre	3
MT 370 Musical Theatre Dance	2
MT 465 Musical Theatre Workshop	3
MT 470 Senior Project in Musical Theatre	3
Music Performance/Vocal Ensemble	4
MUS 101 Sight-Singing and Theory I	4
MUS 160 Beginning Class Piano I	1
MUS 160 Beginning Class Piano II	1
MUS 269 Individual Performance in Voice	4
MUS 469 Individual Performance in Voice	4
MUS 360 Voice Class	4
MUS 407 Individual Coaching in Musical Theatre	2
(MT 465 and MUS 407 must be taken concurrently)	
THEA 100 Individual Performance in Theatre	2
(Must be crew)	
THEA 160 Beginning Acting	3
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1
THEA 370 Stage Combat	2

Note

Admission to the Bachelor of Arts with a major in the Musical Theatre Program is by audition. Students pursuing the degree must meet the following requirements:

- Complete 40 hours of General Education.
- MT 330 may be used as part of the 40 hours of General Education
- Meet all recital and production attendance requirements.
- Complete the required courses as listed above
- Meet annual juried audition (assessment) requirements.

Bachelor of Arts in Musical Theatre Emphasis in Voice

Program Requirements

Required credits	83
Required elective credits	2
General Education credits: 3 credits already included in requirements above	
Remaining	37
Total credits required for this degree	122

A Bachelor of Arts in Musical Theatre prepares students for professional careers in musical theatre. This program is intended to produce the highest achievement possible in the level of performance of the singer/actor/dancer through study of musical skills, theatrical skills and dance and movement skills.

The Bachelor of Arts in Musical Theatre prepares the student to perform professionally in musical theatre.

Required Credits — 83 semester hours

MT 260 Acting in Musical Theatre	3
MT 285 Performance in Musical Theatre	2
MT 485 Performance in Musical Theatre	2
MT 330 History of Musical Theatre	3
MT 360 Scene Study in Musical Theatre	3
MT 370 Musical Theatre Dance	2
MT 465 Musical Theatre Workshop	3
MUS 407 Individual Coaching in Musical Theatre	2
(MT 465 and MUS 407 must be taken concurrently)	
MT 470 Senior Project in Musical Theatre	3
Music Performance (Vocal Ensemble)	8
MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2
MUS 160 Beginning Class Piano	1
MUS 161 Beginning Class Piano	1
MUS 260 Intermediate Class Piano	1
MUS 261 Intermediate Class Piano	1

MUS 269 Individual Performance in Voice	8
MUS 469 Individual Performance in Voice	8
Select four credits from the following:	4
MUS 285 Performance in Opera Theatre (1-3)	
MUS 485 Performance in Opera Theatre (1-12)	
MUS 286 Scene Studies in Opera (1-3)	
MUS 486 Scene Studies in Opera (1-3)	
DNCE 166 Ballet	4
or	
DNCE 180 Intermediate Ballet	4
DNCE 170 Jazz Dance	2
or	
DNCE 181 Intermediate Jazz	2
DNCE 175 Tap Dance	1
or	
DNCE 183 Intermediate Tap	1
THEA 100 Individual Performance in Theatre (must be crew work)	2
THEA 160 Beginning Acting	3
THEA 250 Stage Make-up I	1
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1

Required Elective Credits — 2 semester hours

Courses taken in Music, Theatre, or Dance with the approval of the coordinator	2
<i>Strongly recommended:</i>	
THEA 370 Stage Combat	2

Note

Admission to the Bachelor of Arts with a major in Musical Theatre program is by audition. Students pursuing the degree must meet the following requirements:

- Complete 40 hours of General Education.
- MT 330 may be used as part of the 40 hours of General Education.
- Meet all recital and production attendance requirements.
- Complete the required courses as listed above.
- Meet annual juried audition (assessment) requirements.

Bachelor of Arts in Theatre Arts Emphasis in Acting

Program Requirements

Required credits	52
Required elective credits	2
General Education	40
Elective credits	26
Total credits required for this degree	120

A major in Theatre Arts with an emphasis in Acting provides pre-professional training for students who have professional theatre employment as their career goal. The program cultivates an appreciation and understanding of theatre as part of American society and culture and as an amateur avocation for the enrichment of life.

A major in Theatre Arts with an emphasis in Acting prepares actors to perform professionally in regional theatre, national touring companies and in major productions throughout the United States and provides preparation for graduate studies in theatre.

Required Credits — 52 semester hours

THEA 100 Individual Performance in Theatre	14
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 190 Stage Speech I	1
THEA 191 Stage Speech II	1
THEA 235 Stage Dialects	1
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 260 Scene Study	2
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1
THEA 330 History of the Theatre I	3
THEA 331 History of the Theatre II	3
THEA 335 Advanced Voice Production	1

THEA 360 Advanced Acting Styles I	2
THEA 361 Advanced Acting Styles II	2
THEA 370 Stage Combat	2
THEA 372 Period Movement	1
THEA 464 Audition Techniques	2
MT 261 Singing for Actors	2

Required Elective Credits in Theatre — 2 semester hours

Notes

First semester (non-technical emphasis) freshman do not take THEA 100/ Individual Performance in Theatre, but are required to take THEA 100 all other academic year semesters in residence.

Attendance at or involvement in all productions of The Little Theatre of the Rockies is required during residency.

General Auditions are required every year during residency. The acting and directing faculty assess the progress of students in acting at this time. This provides the student with the opportunity to demonstrate growth and progress in the field. Each audition consists of two short monologues that are memorized and performed. Students then make appointments with the faculty to receive evaluation.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

Auditions are required for entrance into this emphasis area.

Bachelor of Arts in Theatre Arts Emphasis in Dance Performance/Choreography

Program Requirements

Required credits	71
Suggested elective credits	9
General Education	40
Total credits required for this degree	120

This emphasis in dance has been designed for the student who wants to prepare for a dance performing career. Students who complete this emphasis will have an integrated program in dance and theatre arts/music. Students may choose to work in dance studios or with a professional dance company upon completion of this emphasis. A dance apprenticeship is required at the conclusion of this program.

Required Credits — 71 semester hours

*Total required credits in Ballet	12
DNCE 169 Partnering (1)	
DNCE 180 Intermediate Ballet (2)	
DNCE 292 Advanced Ballet (3)	
*Total required credits in Jazz Dance	6
DNCE 181 Intermediate Jazz Dance (2)	
DNCE 293 Advanced Jazz Dance (2)	
*Total required credits in Modern Dance	6
DNCE 182 Intermediate Modern Dance (2)	
DNCE 294 Advanced Modern Dance (2)	
*Total required credits in Dance Performance	4
DNCE 295 Beginning Dance Theory and Technique (1)	
DNCE 296 Beginning Choreography and Improvisation (2)	
DNCE 354 Dance Performance I, Tour Troupe (2)	
DNCE 355 Dance Performance II, Spring Concert (2)	
DNCE 356 Dance Performance III, Choreographic Project (2)	
DNCE 357 Dance Performance IV, Company (4)	
DNCE 397 Intermediate Technique, Improvisation and Composition (2)	
DNCE 440 Labanotation/Movement Analysis	2
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment	3
DNCE 454 Dance History	2

DNCE 455 Dance Philosophy/Trends	2
DNCE 456 Advanced Technique, Improvisation and Composition	2
DNCE 459 Dance Production	2
DNCE 460 Dance Kinesiology	3
DNCE 480 Junior/Senior Seminar	1
DNCE 490 Dance Apprenticeship	3
KINE 220 Anatomical Kinesiology	3
MUS 140 Introduction to Music	3
THEA 100 Individual Performance in Theatre	2
THEA 149 Survey of Technical Theatre	3

* Students must obtain card to certify completion of CPR Training

Suggested Elective Credits — 9 semester hours

Additional dance technique classes, i.e. ballet, jazz, modern, tap, ballroom, partnering. Additional dance performance classes.	
MT 370 Musical Theatre Dance	2
DNCE 174 Dance Conditioning	1
DNCE 290 Ballet Partnering	1
DNCE 291 Advanced Ballroom Dance	1

Notes

Admission to this emphasis is by audition and interview. All new students must take a placement technique class as part of their audition. Students choosing this emphasis must have a 2.7 GPA before enrolling in the apprentice experience. Any student receiving a grade of "D" or lower in a course in the emphasis must retake the course until a grade of "C" or higher is achieved. This is with exception of technique classes. A grade of "B" or better must be achieved in technique class in order to progress to the next level.

Students must obtain card to certify completion of CPR training.

All emphasis students must take a written assessment at the end of the fourth year. Assessments in the areas of modern dance, jazz dance, ballet, choreography, performance and teaching will be done as part of coursework throughout the four years.

Bachelor of Arts in Theatre Arts Emphasis in Dance Sciences

Program Requirements

Required credits	76
Suggested elective credits	4
General Education	40
Total credits required for this degree	120

This emphasis in dance has been designed for the student who wants to study dance as both an art and a science. Students who complete this emphasis will have an integrated program in dance, kinesiology and theatre arts. Students may wish to follow this degree with further study in some form of therapeutic or rehabilitative work. An internship in some form of rehabilitative work is required at the conclusion of this program.

Required Credits — 76 semester hours

<i>*Total required credits in Ballet</i>	<i>12</i>
DNCE 180 Intermediate Ballet (2)	
DNCE 292 Advanced Ballet (3)	
<i>*Total required credits in Jazz Dance</i>	<i>4</i>
DNCE 181 Intermediate Jazz Dance (2)	
DNCE 293 Advanced Jazz Dance (2)	
<i>*Total required credits in Modern Dance</i>	<i>6</i>
DNCE 182 Intermediate Modern Dance (2)	
DNCE 294 Advanced Modern Dance (2)	
<i>*Total required credits in Dance Performance</i>	<i>4</i>
DNCE 295 Beginning Dance Theory (1)	
DNCE 296 Beginning Choreography and Improvisation (2)	
DNCE 354 Dance Performance I, Tour Troupe (2)	
DNCE 355 Dance Performance II, Spring Concert (2)	
DNCE 397 Intermediate Technique, Improvisation and Composition (2)	
DNCE 440 Labanotation/Movement Analysis	<i>2</i>
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment	<i>3</i>
DNCE 454 Dance History and Philosophy	<i>2</i>
DNCE 455 Dance Philosophy/Trends	<i>2</i>
DNCE 456 Advanced Technique, Improvisation and Composition	<i>2</i>
DNCE 459 Dance Production in High School and College	<i>2</i>

DNCE 460 Dance Kinesiology	<i>3</i>
DNCE 480 Junior/Senior Seminar	<i>1</i>
DNCE 492 Internship in Dance Leadership	<i>3</i>
KINE 221 Mechanical Kinesiology	<i>3</i>
KINE 222 Physiological Kinesiology	<i>3</i>
KINE 223 Psychological Kinesiology	<i>3</i>
KINE 380 Prevention and Care of Sports Injuries	<i>2</i>
KINE 402 Human Performance Assessment	<i>3</i>
KINE 404 Exercise, Nutrition and Body Composition	<i>3</i>
PE 211 Weight Training and Anatomy	<i>3</i>
THEA 100 Individual Performance in Theatre	<i>2</i>
THEA 149 Survey of Technical Theatre	<i>3</i>

* Students must obtain card to certify completion of CPR Training.

Suggested Elective Credits — 4 semester hours

Additional dance technique classes, i.e. ballet, jazz, modern, tap, ballroom and partnering. Additional dance performance classes.	
DNCE 174 Dance Conditioning	<i>1</i>
DNCE 290 Ballet Partnering	<i>1</i>
DNCE 291 Advanced Ballroom Dance	<i>1</i>

Notes

Admission to this emphasis is by audition and interview. All new students must take a placement technique class as a part of their audition. Students choosing this emphasis must have a 2.7 GPA before enrolling in the internship experience. Any student receiving a grade of "D" or lower in a course in the emphasis must retake the course until a grade of "C" or higher is achieved. This is with the exception of technique classes. A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

Students must obtain card to certify completion of CPR training.

All emphasis students must take a written assessment at the end of the fourth year. Assessments in the areas of modern dance, jazz dance, ballet, choreography, performance and teaching will be done as part of coursework throughout the four years.

Bachelor of Arts in Theatre Arts Emphasis in Dance Teaching/Movement Analysis (Non-Licensure)

Program Requirements

Required credits	73
Suggested elective credits	7
General Education	40
Total credits required for this degree	120

This emphasis in dance has been designed for the student who wants to prepare for a dance teaching career in non-public school settings. Students who complete this emphasis will have an integrated program in dance, kinesiology and theatre arts/music. Students may choose to work in dance studios, health spas, recreational settings, or with a professional dance company upon completion of this emphasis. A practicum in dance teaching is required at the conclusion of this program.

Those individuals who want to teach dance in a school setting must obtain a teaching major, such as physical education or theatre arts and must complete the Professional Teacher Education program (PTEP) as outlined in this Bulletin.

Required Credits — 73 semester hours

<i>*Total required credits in Ballet</i>	<i>12</i>
DNCE 167 Intermediate Ballroom Dance (1)	
DNCE 169 Partnering (1)	
DNCE 175 Intermediate Tap Dance (1)	
DNCE 180 Intermediate Ballet (2)	
DNCE 292 Advanced Ballet (3)	
<i>*Total required credits in Jazz Dance</i>	<i>6</i>
DNCE 181 Intermediate Jazz Dance (2)	
DNCE 293 Advanced Jazz Dance (2)	
<i>*Total required credits in Modern Dance</i>	<i>6</i>
DNCE 182 Intermediate Modern Dance (2)	
DNCE 294 Advanced Modern Dance (2)	
<i>*Total required credits in Dance Performance</i>	<i>4</i>
DNCE 295 Beginning Dance Theory and Technique (1)	
DNCE 296 Beginning Choreography and Improvisation (2)	
DNCE 354 Dance Performance I, Tour Troupe (2)	
DNCE 355 Dance Performance II, Spring Concert (2)	
DNCE 397 Intermediate Technique, Improvisation and Composition (2)	
DNCE 440 Labanotation	<i>2</i>
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment	<i>3</i>

DNCE 454 Dance History and Philosophy	<i>2</i>
DNCE 455 Dance Philosophy/Trends	<i>2</i>
DNCE 456 Advanced Technique, Improvisation and Composition	<i>2</i>
DNCE 459 Dance Production	<i>2</i>
DNCE 460 Dance Kinesiology	<i>3</i>
DNCE 480 Junior/Senior Seminar	<i>1</i>
DNCE 493 Practicum in Dance Teaching	<i>3</i>
KINE 221 Anatomical Kinesiology	<i>3</i>
KINE 220 Mechanical Kinesiology	<i>3</i>
MUS 140 Introduction to Music	<i>3</i>
MT 370 Musical Theatre Dance	<i>2</i>
THEA 100 Individual Performance in Theatre	<i>2</i>
THEA 149 Survey of Technical Theatre	<i>3</i>
THEA 275 Stage Movement I	<i>1</i>

* Students must obtain card to certify completion of CPR Training.

Suggested Elective Credits — 7 semester hours

Additional dance technique classes, i.e. ballet, jazz, modern, tap, ballroom and partnering. Additional dance performance classes.	
MT 370 Musical Theatre Dance	<i>2</i>
DNCE 174 Dance Conditioning	<i>1</i>
DNCE 290 Ballet Partnering	<i>1</i>
DNCE 291 Advanced Ballroom Dance	<i>1</i>

Notes

Admission to this emphasis is by audition and interview. All new students must take a placement technique class as part of their audition. Students choosing this emphasis must have a 2.7 GPA before enrolling in the practicum experience. Any student receiving a grade of "D" or lower in a course in the emphasis must retake the course until a grade of "C" or higher is achieved. This is with exception of technique classes. A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

Students must obtain card to certify completion of CPR training.

All emphasis students must take a written assessment at the end of the fourth year. Assessments in the areas of modern dance, jazz dance, ballet, choreography, performance and teaching will be done as part of coursework throughout the four years.

Bachelor of Arts in Theatre Arts Emphasis in Design Technology

Program Requirements

Required credits	50
Required elective credits	3
General Education	40
Elective credits	27
Total credits required for this degree	120

A major in Theatre Arts with an emphasis in Design Technology provides pre-professional training for students who have professional theatre employment as their career goal. The program cultivates an appreciation and understanding of theatre as part of American society and culture and as an amateur avocation for the enrichment of life.

A major in Theatre Arts with an emphasis in Design Technology prepares designers and technicians to work professionally in regional theatre, national touring companies and in major productions throughout the United States and provides preparation for graduate studies in theatre.

Required Credits — 50 semester hours

THEA 100 Individual Performance in Theatre	16
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 210 Graphics and Management	3
THEA 240 Beginning Stage Directing	3

Bachelor of Arts in Theatre Arts Emphasis in Directing

Program Requirements

Required credits	51
Required elective credits	2
General Education	40
Elective credits	27
Total credits required for this degree	120

A major in Theatre Arts with an emphasis in Directing provides pre-professional training for students who have professional theatre employment as their career goal. The program cultivates an appreciation and understanding of theatre as part of American society and culture and as an amateur avocation for the enrichment of life.

A major in Theatre Arts with an emphasis in Directing prepares students to direct plays professionally or in a community or academic environment and provides preparation for graduate studies in theatre.

Required Credits — 51 semester hours

THEA 100 Individual Performance in Theatre	14
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 190 Stage Speech I	1
THEA 191 Stage Speech II	1
THEA 210 Graphics and Management	3
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 260 Scene Study	2
THEA 275 Stage Movement I	1

THEA 250 Stage Make-up I	1
THEA 310 Beginning Scene Design	3
THEA 320 Stage Costume Design	3
THEA 330 History of Theatre I	3
THEA 331 History of Theatre II	3
THEA 411 Stage Lighting	3
THEA 410 Advanced Design and Technology	3
or	
THEA 420 Advanced Costume Technical Design	3

Required Elective Credits in Theatre — 3 semester hours

THEA 251 Advanced Stage Make-Up (recommended)	1
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Notes

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

Attendance at or involvement in all productions of The Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

THEA 330 History of the Theatre I	3
THEA 331 History of the Theatre II	3
THEA 370 Stage Combat	2
THEA 372 Period Movement	1
THEA 440 Directing the One-Act Play	1
<i>Select two of the following:</i>	
MT 342 Workshop in Directing/Choreography for Musical Theatre	3
THEA 340 Workshop in Directing I	3
THEA 341 Workshop in Directing II	3

Required Elective Credits in Theatre — 2 semester hours

Notes

First semester (non-technical emphasis) freshman do not take THEA 100 Individual Performance in Theatre, but are required to take THEA 100 all other academic year semesters in residence.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

Attendance at or involvement in all productions of The Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

Bachelor of Arts in Theatre Arts Emphasis in General Dance

Program Requirements

Dance and Related courses	47
Electives selected under advisement	33
General Education	40
Total credits required for this degree	120

This emphasis has been designed for the student who wants to study dance both as an art and as an educational technique. Students who complete this emphasis will have a program which includes studies in all the important aspects of the dance field. Students may wish to pursue the General Dance Emphasis along with another major, or while taking courses in other fields.

Those individuals who want to teach in a school setting must obtain a teaching major such as Physical Education or Theatre Arts, and must complete the Professional Teacher Education Program (PTEP) as outlined in this Bulletin.

Required courses — 47 semester hours

DNCE 167 Intermediate Ballroom Dance	1
DNCE 175 Intermediate Tap Dance	1
DNCE 180 Intermediate Ballet	2
DNCE 292 Advanced Ballet	3
DNCE 181 Intermediate Jazz Dance	2
DNCE 293 Advanced Jazz Dance	2

Bachelor of Arts in Theatre Arts Emphasis in General Theatre

Program Requirements

Required core credits	32
Required elective credits	19
General Education	40
Elective credits	29
Total credits required for this degree	120

A major in Theatre Arts with a General emphasis provides pre-professional training for students who have professional theatre employment as their career goal. The program cultivates an appreciation and understanding of theatre as part of American society and culture and as an amateur avocation for the enrichment of life.

A major in Theatre Arts with an emphasis in General Theatre provides a general preparation for careers in the performing arts and provides preparation for graduate studies in theatre.

Required Core Credits — 32 semester hours

THEA 100 Individual Performance in Theatre	14
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 190 Stage Speech I	1
THEA 191 Stage Speech II	1
THEA 250 Stage Make-up I	1
THEA 330 History of the Theatre I	3
THEA 331 History of the Theatre II	3

Required Elective Credits — 19 semester hours

MT 342 Workshop in Directing/Choreography in Musical Theatre	3
MT 360 Scene Study in Musical Theatre	3
MT 475 Music Dance Workshop	1
THEA 210 Graphics and Management	3

DNCE 182 Intermediate Modern Dance	2
DNCE 294 Advanced Modern Dance	2
DNCE 295 Beginning Dance Theory	1
DNCE 296 Beginning Choreography and Improvisation	2
DNCE 397 Intermediate Technique, Improvisation and Composition	2
DNCE 354 Dance Performance I, Tour Troupe	2
or	
DNCE 355 Dance Performance II, Spring Concert	2
or	
DNCE 357 Dance Performance IV, Company	2
DNCE 440 Labanotation/Movement Analysis	2
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment	3
DNCE 454 Dance History and Philosophy	2
DNCE 455 Dance Philosophy Trends	2
DNCE 456 Advanced Technique, Improvisation and Composition	2
DNCE 459 Dance Production in High School and College	2
DNCE 460 Dance Kinesiology	3
DNCE 480 Junior/Senior Seminar	1
THEA 100 Individual Performance in Theatre	2
THEA 149 Survey of Technical Theatre	3
KINE 220 Anatomical Kinesiology	3
or	
PE 211 Weight Training and Anatomy	3

THEA 240 Beginning Stage Directing	2
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1
THEA 310 Beginning Scene Design	3
THEA 320 Beginning Costume Design	3
THEA 340 Workshop in Directing I	3
THEA 341 Workshop in Directing II	3
THEA 353 Theatre Production	2
THEA 370 Stage Combat	2
THEA 372 Period Movement	1
THEA 401 Practicum in Theatre	1-4
THEA 410 Advanced Design and Technology	3
THEA 411 Stage Lighting	3
THEA 420 Advanced Costume Technical Design	3
THEA 440 Directing the One-Act Play	1

Notes

First semester (non-technical emphasis) freshman do not take THEA 100, Individual Performance in Theatre, but are required to take THEA 100 all other academic year semesters in residence.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

Attendance at or involvement in all productions of The Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

Bachelor of Arts in Theatre Arts Emphasis in Teaching

Program Requirements

Required credits	53
General Education credits:	
6 credits already included in the PTEP program	
Remaining	34
PTEP program	43
Total credits required for this degree	130

A major in Theatre Arts with an emphasis in Teaching provides training for students who have teaching of drama in the secondary school as their career goal. The program cultivates an appreciation and understanding of theatre as part of American society and culture and as an amateur avocation for the enrichment of life.

A major in Theatre Arts with an emphasis in Teaching prepares students to teach drama in grades 7-12.

Required Credits — 53 semester hours

THEA 100 Individual Performance in Theatre	12
MT 342 Workshop in Directing/Choreography in Musical Theatre	3
THEA 135 Playscript Analysis	3
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 190 Stage Speech I	1
THEA 191 Stage Speech II	1
THEA 210 Graphics and Management	3
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 260 Scene Study	2
THEA 275 Stage Movement I	1
THEA 276 Stage Movement II	1
THEA 310 Beginning Scene Design	3
THEA 330 History of the Theatre I	3
THEA 331 History of the Theatre II	3
THEA 385 Methods of Teaching Drama	3
THEA 440 Directing the One-Act Play	1
THEA 340 Workshop in Directing I	3
or	
THEA 341 Workshop in Directing II	3

Note that THEA 385 is a PTEP requirement taken concurrently with EDLS 363.

Notes

Students who are in theatre education must apply for admission to the Professional Teacher Education program (PTEP). Students are responsible for familiarizing themselves with the requirements in the PTEP section of the catalog. It is recommended that application for PTEP be made during the sophomore year, or after completing 30 semester hours of University coursework and no later than the first semester of the junior year.

In addition to fulfilling program procedures and course requirements, a theatre education emphasis student must have and maintain a minimum grade point average of 3.0 in Theatre Arts and a 2.80 GPA for overall University coursework. Failure to do so will result in the student's discontinuance from the Theatre Arts/Education emphasis.

Students must complete the College of Education PTEP requirements (see Theatre Education advisor).

All Theatre Education emphasis majors must demonstrate professional promise as a teacher to the satisfaction of the Theatre Arts Faculty.

The Department of Theatre Arts requires student majors to consult with and be advised by a faculty member teaching in the department.

A teaching minor is highly recommended. Students must remember that in the public schools of the State of Colorado more than half the teaching load must be done in the area of licensure. A student desiring this licensure should be prepared for many additional requirements in content and in methods and observation in the minor field.

This program meets the current licensure requirements for teaching drama in the secondary schools of Colorado.

This program meets the current minimum requirements of the North Central Association for teachers of drama.

Attendance at or involvement with all productions of the Little Theatre of the Rockies is required during residency.

The Colorado Commission on Higher Education and this Department require the completion of a yearly assessment process in this emphasis area. The assessment, which includes an evaluation of your year's progress as well as a yearly audition or interview, may be the basis of your continuance in this emphasis area.

Bachelor of Arts in Visual Arts Emphasis in Art

Program Requirements

Required credits	26
Area of concentration credits	9
Required elective credits in Art	13
General Education credits:	
Specified	3
Remaining	37
Elective credits	32
Total credits required for this degree	120

The art emphasis is a liberal arts program designed to give students broad exposure to the studio arts and art history.

It prepares the artist and craftsperson. It is an ideal preparatory program for students planning to do advanced or graduate study in art and art history.

Required Credits — 26 semester hours

Freshman Foundations

ART 181 History of Art I	4
ART 182 History of Art II	4
ART 183 Art I	3
ART 184 Art II	3

Art Core I — Select two of the following:

ART 231 Introduction to Painting	3
ART 234 Basic Drawing	3
ART 252 Printmaking I	3
ART 271 Basic Photography	3

Art Core II — Select two of the following:

ART 211 Ceramic Design	3
ART 212 Wheel Throwing	3
ART 221 Introduction to Fiber Arts	3
ART 261 Sculpture I	3
ART 265 Jewelry	3

At least one advanced art history course must be taken

Area of Concentration Credits — 9 semester hours

Required Elective Credits in Art — 13 semester hours

General Education, Specified:

Category 4 — Arts and Letters

MIND 181 Great Traditions of Asia	3
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Notes

A portfolio review is required of all art majors at the completion of the Freshman year and/or the Art I and Art II courses. This includes Graphic Arts, Art Education and the Art emphases. The portfolio Review is designed to serve as an assessment and advising tool for the Department. Art I and Art II, or their equivalent, must be completed before enrollment in any upper level course.

A minimum of nine semester hours must be completed in one of the following areas of concentration (300 level or above courses): art history, ceramics, drawing, fiber arts, painting, photography, printmaking or sculpture.

Art students should consult with their advisor for help in selecting General Education and general elective courses to augment their studies, strengthen conceptual development and address specific areas of need.

Senior Portfolio

A portfolio review is required of all senior visual arts majors with an emphasis in art and graphic arts before graduation. The review will consist of work completed by the student in his/her area(s) of specialization and is designed to assess the attainment of department objectives.

Senior art history students will submit a portfolio of previously written and graded papers, as well as do an original paper or project.

The portfolio must meet the criteria and guidelines for senior portfolio review as established by each of the areas of specialization in art.

Consult with your advisor concerning the portfolio and thesis/project.

Bachelor of Arts in Visual Arts Emphasis in Art Education

Program Requirements

Required Visual Arts - Studio/Content Knowledge credits	47
Required PTEP core credits	26
Required Visual Arts PTEP credits	13
General Education credits:	
Specified	5
Remaining	35
Total credits required for Visual Arts K-12 Teaching Major	126

The art education emphasis is a K-12 teacher education program preparing students to teach visual arts in the elementary, middle and secondary schools.

It is a program leading to K-12 licensure if all the requirements are satisfactorily completed.

Required Credits — 47 semester hours

ART 181 History of Art I	4
ART 182 History of Art II	4
ART 183 Art I	3
ART 184 Art II	3
ART 171 Computer Based Technology In Visual Arts	2
ART 211 Ceramic Design	3
or	
ART 212 Wheel Throwing	3
ART 221 Introduction to Fiber Arts	3
ART 231 Introduction to Painting	3
or	
ART 332 Watermedia Painting	3
ART 241 Basic Crafts Design	3
ART 252 Printmaking I	3
ART 261 Sculpture I	3
ART 265 Jewelry	3
ART 271 Basic Photography	3
ART 234 Basic Drawing	3
or	
ART 333 Life Drawing	3

Visual Arts PTEP Credits — 13 semester hours

ART 248 Art for the Exceptional Child	2
ART 340 Clinical Experience: K-12 Art	2
ART 440 Foundations of Art Education	2
ART 441 Cultural Studies in the K-12 Curriculum	2
ART 442 Curriculum and Instruction In Art: Studio Strategies	2
ART 443 Computer Technology In Art Education	2
ART 466 Visual Arts Student Teaching Seminar	1

PTEP Core Credits — 23 semester hours

EDFE 270 Field Experience	2
EPSY 346 Learning and Development for Teachers	2
EDF 366 Conceptions of Schooling	4
EDSE 410 Exceptional Students in the Regular Classroom	2
EDRD 425 Reading and Writing in Content Areas	1
EDFE 444 Student Teaching	12

Pre-professional Credits — 3 semester hours

SPCO 100 Basics of Public Speaking	1
SPCO 103 Speaking Evaluation	2

Notes

A portfolio review is required of all art majors at the completion of the Freshman year and/or the Art I and Art II courses. This includes Graphic Arts, Art Education and the Art emphases. The Portfolio Review is designed to serve as an assessment and advising tool for the Department. Art I and Art II, or their equivalent, must be completed before enrollment in any upper level course.

A minimum of nine semester hours must be completed in one of the following areas of concentration (300 level or above credits): art history, ceramics, drawing, fiber arts, graphic design, painting, photography, photographic communications, printmaking, or sculpture.

Students who are in art education must apply for admission to the Professional Teacher Education program (PTEP). Students are responsible for familiarizing themselves with the requirements in the PTEP section of the catalog. At the time application is made to PTEP, the student must also apply for the Art Education/PTEP program.

Application to the Art Education/PTEP program requires the completion of EDFE 270 for a minimum of two semester hours of credit. Art education students must complete this requirement by taking one semester hour in an elementary art classroom and one semester hour in a secondary art classroom or in an equivalent situation with elementary or secondary age students.

It is recommended that application for PTEP be made during the sophomore year, or after completing 30 semester hours of University coursework and no later than the first semester of the junior year. Application to the PTEP program must be made at the beginning of the semester. Application to PTEP requires the student to have declared a major in art. A copy of the requirements for departmental admission to PTEP should be obtained from the art education advisor before making application for the PTEP program.

In addition to fulfilling program procedures and course requirements, an art education student must have and maintain a minimum grade point average of 3.0 in Art and a 2.80 GPA for overall University coursework. Failure to do so may result in the recommendation to discontinue the art education emphasis.

Students must complete the College of Education PTEP requirements (see art education advisor).

Before receiving approval to student teach, an art education student must complete the Comprehensive Art Education PTEP Review. The review is scheduled each semester. Students are advised to complete the review at least two semesters before the semester they plan to student teach. In order to take the comprehensive review, students must have completed the prerequisites and be currently enrolled in the art education emphasis.

Students being reviewed make a presentation to the committee in accordance with the requirements specified in the art education guidelines. All students preparing for the review should work closely with their advisor. At the time of the review, the student is evaluated on the basis of the following: oral presentation, visual presentation, use of media and techniques, design qualities, artistic excellence, knowledge of art and art history, ability to talk about art, intentions of his/her art, knowledge of teaching art, attitude and poise and self-confidence.

The committee will determine whether the student: satisfactorily passes the review and is approved to student teach; passes with stated conditions that must be met before gaining approval to student teach; or fails to pass the review. A student who fails the review will not be approved to student teach, but may apply for a second review the following semester. Failure to pass the review a second time will be considered grounds for terminating the student's art teacher licensure program. The decision of the committee on a second review may be appealed.

Eligibility to student teach is based on the satisfactory completion of the Art Education PTEP review, required and elective art courses, required art education courses, PTEP courses, PLACE examinations and exit or competency examinations as they pertain.

Art students who are not in the art education emphasis and are not seeking licensure, may enroll in art education courses to provide background for teaching art in the helping professions and other related areas, such as community art centers. Appropriate advising is recommended to plan a suitable course of study for a non-licensure program.

Bachelor of Arts in Visual Arts Emphasis in Graphic Arts

Program Requirements
Required credits33
Area of concentration credits15
Required elective credits40
General Education40
Total credits required for this degree128

The graphic arts emphasis prepares students for careers in the commercial fields of art such as graphic design, illustration, advertising, photography, publications and other areas of visual communications.

Students work toward the completion of a required professional quality placement portfolio.

Required Credits — 33 semester hours

Freshman Foundations
 ART 181 History of Art I4
 ART 182 History of Art II4
 ART 183 Art I3
 ART 184 Art II3
Core Courses
 ART 231 Introduction to Painting3
 ART 240 Lettering3
 ART 261 Sculpture I3
 ART 270 Graphic Arts I3
 ART 333 Life Drawing3
 One advanced art history course4

Select One Area of Concentration Credits — 55 semester hours

Graphic Design Concentration
 ART 271 Basic Photography3
 ART 370 Graphic Arts II3
 ART 374 Illustration3
 ART 376 Typography3
 ART 473 Advertising Design3
Graphic Design Required Elective Credits — 40 semester hours (including the following)
 ART 234 Basic Drawing3
 ART 375 Publications Production3
 ART 434 Drawing II3
 ART 474 Graphics Studio1-3

Photographic Communications Concentration
 ART 271 Basic Photography3
 ART 370 Graphic Arts II3
 ART 371 Photographic Design3
 ART 475 Color Photography — Transparencies3
 ART 477 Photographic Illustration and Lighting Techniques3
Photographic Communications Required Elective Credits — 40 semester hours (including the following)
 ART 434 Drawing II3
 ART 472 Photography Studio3
 or
 ART 479 Color Photography — The Print3

Notes

A portfolio review is required of all art majors at the completion of the Freshman year and/or the Art I and Art II courses. This includes Graphic Arts, Art Education and the Art emphases. The Portfolio Review is designed to serve as an assessment and advising tool for the Department. Art I and Art II, or their equivalent, must be completed before enrollment in any upper level course.

Since graphic arts is a professional program, graphics students should consult with their advisor for help in selecting General Education and general elective courses to augment their studies, strengthen conceptual development and address specific areas of need.

An internship of at least 3 semester hours (ART 492) is strongly recommended for graphic arts students. To be eligible to apply for an internship in graphic arts a student must have a minimum grade point average of 3.0 in Art and a 2.8 GPA for overall University coursework.

Senior Portfolio

A portfolio review is required of all senior visual arts majors with an emphasis in art and graphic arts before graduation. The review will consist of work completed by the student in his/her area(s) of specialization and is designed to assess the attainment of departmental objectives.

The portfolio must meet the criteria and guidelines for senior portfolio review as established by each of the areas of specialization in art. Consult with your advisor concerning the portfolio.

Bachelor of Arts in Interdisciplinary Studies Emphasis in Fine Arts

Program Requirements
Required credits39-40
General Education40
Elective credits40-41
Total credits required for this degree120

The Bachelor of Arts in Interdisciplinary Studies Emphasis in Fine Arts is designed to provide the student with a coordinated study of the various disciplines of the fine arts.

The degree is an appropriate plan of study for those wishing to teach in elementary school and for those wishing a broad liberal arts education with a specialization in the fine arts.

Required Credits — 39-40 semester hours

ART 190 Art Appreciation3
Select one of the following:
 ENG 260 Masterpieces of English Literature3
 ENG 261 Masterpieces of American Literature3
 ENG 262 Masterpieces of World Literature3
 MUS 140 Introduction to Music3
 MUS 204 Music Fundamentals and Experiences3

MUS 241 Perceiving the Arts3
 THEA 130 Introduction to Theatre3
 THEA 281 Improvisation and Creative Dramatics3
Select two of the following:
 MIND 288 Contemporary Arts Connection3
 MIND 293 Play as a Route to Insight and Creation3
 MIND 297 Creativity in the Arts3
 MIND 299 Great Ideas in the History of the Arts3
 ENG — Select a 300 level course in English or American Literature3
 Participation in Music ensembles, Theatre or Music Theatre Productions or creative activities in Visual Arts3
Select one of the following:
 ART 290 Visual Thinking and Visual Images3
 ART 388 19th Century Art4
 ART 389 20th Century Art4
 ART 441 Cultural Studies in the K-12 Curriculum3
 MT 330 History of Musical Theatre3
 or
 MUS 340 Survey of History and Literature of Jazz3

Master of Arts in Visual Arts

Program Requirements

Complete the required core credits specified here	16
Complete an area of emphasis	12
Complete program electives	8

The 36 semester hour graduate program in the Department of Visual Arts leads to the Master of Arts degree. It offers an in-depth and individualized course of study. Graduate students may choose an area of emphasis in art education, art history, ceramics, computer imaging, drawing, fiber arts, painting, photography, printmaking and book arts, sculpture or an approved combination of these emphases.

Graduate programs in the art department provide opportunities for students who want to develop advanced expertise in art education, art history and studio arts. Any of the areas of emphasis or combinations of emphases are suitable for the K-12 art educator seeking a masters degree. The M.A. degree can also be used in preparation for further, more advanced, graduate studies.

It is the goal of the Department of Visual Arts to encourage, foster and provide academic rigor and artistic excellence.

Admission

In addition to meeting the admission requirements of the Graduate School, admission to the Master of Arts in Visual Arts degree program is approved by the faculty of the Department of Visual Arts following an evaluation of the applicant's admission materials. At the time of application to the Graduate School, departmental application materials should be sent to: Graduate Coordinator, Department of Visual Arts, University of Northern Colorado, Greeley, CO 80639. Art Department application materials include a slide portfolio of no less than 20 different pieces of current work in the proposed area of study on 35mm color slides of professional quality; a typewritten statement by the applicant elaborating the reasons for pursuing advanced studies in art or art education, statement to be two pages in length and an example of writing ability; three letters of recommendation, preferably from professionals working in the field; and a current resume. For more information, contact the Graduate Coordinator or Department Chair.

Prerequisites

Students who have completed an undergraduate degree in art or art education or the equivalent and whose grade point average is a minimum of 3.0 based on the last 67 semester hours of coursework, may apply for the Master of Arts degree program in the Department of Visual Arts. An applicant who does not have an undergraduate major in art or art education, or its equivalent, will be required to complete specified coursework or areas of study before beginning the program.

Required Credits — 16 semester hours

ART 500 Contemporary Issues in Art	3
ART 600 Graduate Research in Art	3

ART 680 Seminar in Art History	4
ART 699 Thesis	6

Area of Emphasis — 12 semester hours

Art Emphasis	12
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Required Art Electives — 8 semester hours

Notes

The student and the academic advisor will select a graduate committee of at least two other faculty from the art department. This committee must be chosen during the first semester in the graduate program.

The student, with the approval of the academic advisor and committee, will develop a course of study for the degree program. The approved course of study will be submitted to the graduate coordinator. Changes in the course of study must be approved by the student's academic advisor and committee.

Students having less than 12 semester hours of art history in their undergraduate program will include enough hours of art history to make up the deficiency over and above the semester hours required for a master's degree.

Students are required to have a graduate committee review each semester. The student will submit a written report of the graduate review to the academic advisor and the graduate coordinator. The student assumes responsibility for scheduling graduate reviews each semester. Two consecutive semesters of unsuccessful graduate reviews will be considered grounds for termination of the program.

In conjunction with ART 600, the student will prepare and submit a written thesis proposal. The proposal must be approved by all members of the student's graduate committee before beginning the thesis.

A written thesis is required of all Master of Arts degree candidates in the Department of Visual Arts. For those who select an emphasis in one of the studio areas, an exhibition of art work completed for the degree is also required. Works for exhibition must be approved by the academic advisor and committee. One of the works from the graduate thesis exhibit may be retained by the department and will be selected by the student's graduate committee. Students with an emphasis in art education are required to do a research thesis.

Upon completion of the program, the student will be required to demonstrate competence in the designated area of emphasis in accordance with approved departmental standards. The student's committee must approve the candidate for graduation.

Minor in Dance**Program Requirements****Total credits required for this minor23****Required Credits — 23 semester hours**

DNCE 180 Intermediate Ballet Dance	2
DNCE 181 Intermediate Jazz Dance	2
DNCE 182 Intermediate Modern Dance	2
DNCE 295 Beginning Dance Theory	1
DNCE 296 Beginning Choreography and Improvisation	2
DNCE 397 Intermediate Technique, Improvisation and Composition	2
DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment	3
DNCE 454 Dance History and Philosophy	2
DNCE 456 Advanced Technique, Improvisation and Composition	2
DNCE 459 Dance Production in High School and College	2
KINE 220 Anatomical Kinesiology	3

Notes

The dance minor focuses on the development of skills and teaching strategies that will enhance the student's ability to teach or work with dance in a variety of settings. The Dance minor can be selected by students in conjunction with most other majors at the University. Approval by the major department is required for this minor.

If a student wishes to teach in the public schools, licensure must be obtained through the appropriate major. Suggested combinations of programs of study for public school teacher licensure are a Dance Minor with a Theatre Arts Education major or a Dance Minor plus a Physical Education major. At present there is no public school licensure for dance in Colorado's public schools.

A grade of "B" or better must be achieved in a technique class in order to progress to the next level.

Minor in Music/Liberal Arts**Program Requirements****Required credits12****Required elective credits9****Total credits required for this minor21****Required Credits — 12 semester hours**

MUS 101 Sight-Singing and Theory I	4
MUS 102 Sight-Singing and Theory II	4
MUS 141 Music Literature and Styles I	2
MUS 142 Music Literature and Styles II	2

Required Elective Credits — 9 semester hours

The student may select courses in music history, theory, literature, performance study or ensemble participation to complete the 21 required hours. A maximum of 4 hours of performance and 2 hours of ensemble participation may apply toward meeting the elective requirements.

Minor in Theatre Arts**Program Requirements****Required credits16****Required elective credits in Theatre Arts9****Total credits required for this minor24****Required Credits — 16 semester hours**

THEA 100 Individual Performance in Theatre	4
THEA 149 Survey of Technical Theatre	3
THEA 135 Playscript Analysis	3
THEA 160 Beginning Acting	3
THEA 240 Beginning Stage Directing	3

Required Elective Credits in Theatre Arts — 9 semester hours**Minor in Theatre Arts/Teaching****Program Requirements****Total credits required for this minor23****Required Credits — 23 semester hours**

THEA 100 Individual Performance in Theatre	4
THEA 149 Survey of Technical Theatre	3
THEA 160 Beginning Acting	3
THEA 210 Graphics and Management	3
THEA 240 Beginning Stage Directing	3
THEA 250 Stage Make-up I	1
THEA 281 Improvisation and Creative Dramatics	3
THEA 310 Beginning Scene Design	3

Notes

THEA 385 (3 hours credit) and EDLS 363 (2 hours credit) taken in Theatre Arts.

This program does not meet the current licensure requirements of the North Central Association for teachers of drama.

Minor in Visual Arts**Program Requirements****Required credits13****Required core credits6****Required elective credits7****Total credits required for this minor20****Required Credits — 13 semester hours***Foundation Studies*

ART 181 History of Art I	4
or	
ART 182 History of Art II	4
ART 183 Art I	3
or	
ART 184 Art II	3

Required Core Credits — 6 semester hours

ART 211 Ceramic Design	3
or	
ART 212 Wheel Throwing	3
ART 221 Introduction to Fiber Art	3
ART 252 Printmaking I	3
ART 261 Sculpture I	3
ART 231 Introduction to Painting	3

Required Elective Credits — 7 semester hours

Take at least 2 courses, selected from the art department areas of concentration: ceramics, drawing, fiber arts, graphic design, painting, photography, photographic communications, printmaking or sculpture.

Note

An art minor advisor is required.

Course Descriptions

Course Prefixes

AFS	Africana Studies	229	EDMG	Elementary Education: Middle Grades	250	MED	Mathematics Education	275
ANT	Anthropology	229	EDMS	Elementary Education: Middle School	250	MET	Meteorology	276
ART	Visual Arts	230	EDRD	Reading	250	MIND	Life of the Mind Program	277
AS	Aerospace Studies	233	EDSE	Special Education	252	MS	Military Science	277
AST	Astronomy	233	EED	English Education	255	MT	Musical Theatre	277
BA	Business Administration	233	ELPS	Educational Leadership and Policy Studies	256	MTEC	Medical Technology	277
BAAC	Accounting	234	ENG	English	257	MUS	Music	278
BACS	Computer Information Systems	234	ENST	Environmental Studies	258	NURS	Nursing	284
BAFN	Finance	235	EPSY	Educational Psychology	259	OCN	Oceanography	286
BAMG	Management	236	ESCI	Earth Sciences	260	PE	Physical Education	286
BAMK	Marketing	236	ESL	English as a Second Language	260	PHIL	Philosophy	289
BCHM	Biochemistry	236	ET	Educational Technology	260	PHYS	Physics	290
BIED	Biology Education	237	FL	Foreign Languages	261	PPSY	Professional Psychology	290
BIO	Biology	237	FND	Food, Nutrition and Dietetics	261	PSCI	Political Science	293
BOT	Botany	238	FR	French	262	PSY	Psychology	294
CED	Computer Education	238	GEOG	Geography	263	REC	Recreation	295
CG	Computing, General	238	GEOL	Geology	264	RUS	Russian	296
CH	Community Health	239	GEP	General Education Program	265	SCED	Science Education	296
CHED	Chemistry Education	239	GER	German	265	SCI	Science	296
CHEM	Chemistry	240	GERO	Gerontology	266	SOC	Sociology	297
CHIN	Chinese	241	HISP	Hispanic Studies	266	SOSC	Social Science	298
CMDS	Communication Disorders	241	HIST	History	267	SPAN	Spanish	298
CS	Computer Science	243	HON	Honors Program	269	SPCO	Speech Communication	300
CSPA	College Student Personnel Administration	243	HRS	Human Rehabilitative Services	269	SRM	Statistics and Research Methods	301
DNCE	Dance	244	HUM	Humanities	270	STAT	Statistics	302
ECON	Economics	245	ID	Interdisciplinary Studies	271	STEP	Secondary Teacher Education Program	303
EDEC	Elementary Education: Early Childhood	246	JAPAN	Japanese	271	TED	Teacher Education	303
EDEL	Elementary Education	247	JMC	Journalism and Mass Communications	271	TESL	Teaching English as a Second Language	303
EDF	Foundations of Education	248	KINE	Kinesiology	272	THEA	Theatre Arts	303
EDFE	Educational Field Experiences	249	MATH	Mathematics	273	WS	Women's Studies Program	304
EDLD	Education of Linguistically Different	249	MCS	Multicultural Studies	275	ZOO	Zoology	305
EDLS	Educational Field Experience: Laboratory School	250						

Course Numbers. The University divides its courses into four groups identified by course numbers. These numbers generally indicate the difficulty of a course and its location on a continuum of systematic study that will lead to general mastery of the content and methodology of a discipline.

Basic Skills courses are designed to teach academic skills and general competencies necessary to succeed in college. These courses, numbered 001 through 009, do not count in term, cumulative or total credits and are not calculated into the GPA.

Lower division courses include those numbered in the 100 range for freshmen students, and those numbered in the 200 range for sophomores.

Upper division courses include those numbered in the 300 range for juniors, and those numbered in the 400 range for seniors.

Graduate courses include those numbered in the 500, 600, 700 ranges. Qualified juniors and seniors may be admitted to 500 courses by special permission of the instructor, but no undergraduates may be admitted to 600- or 700-level courses.

New courses approved between catalogs will end with a "98." These courses may not be listed in the Bulletin, but will appear in the *Schedule of Classes*. For example a new course in Geology might be GEOL 398. The permanent course number will be implemented in the next catalog.

Course Prefixes. In addition to a number that identifies where a course fits within a discipline, each course is assigned a prefix that identifies the appropriate discipline, field or department. For example, the numerical designations for the courses in Communication Disorders are preceded by CMDS; the numerical designations for courses

in Mathematics are preceded by MATH; and the numerical designations for courses in Visual Arts are preceded by ART.

Course Credit. As indicated elsewhere in this *Bulletin*, the University operates on a semester system. All credit toward graduation is computed in "semester" credit hours. "One credit hour" means a course is taught for one hour one day each week through the academic semester of approximately 15 weeks.

Courses may be repeated for credit only when the Bulletin so indicates and only up to the maximum number of credits shown.

Students may register in a course for "no credit," but must pay the appropriate tuition and fees. No audit or visitor cards are issued.

AFS - Africana Studies**AFS 100 Introduction to Black Studies (3)**

Reviews the emergence of black studies as an interdisciplinary field and also presents a rudimentary panorama of African American history. Methodological questions and intellectual debates within the field are introduced.

AFS 101 Crisis of Identity (3) Addresses social conditions that lead to formation of African identity in America. Of special interest are Negro-to-American conversion experience, concept of racism, subordination and role of African American culture.

AFS 102 The Black Woman in America (3) Review the contributions of African American women historically in this country in the areas of social and political struggle, education, business, science and sports.

AFS 104 Survey of Africa (3) Explores the geography, culture, philosophy, history, art, politics, economics, women and literature of Africa.

AFS 201 African American History I (3) A survey of the black experience from the African homeland to initial capture, enslavement and emancipation — 1619-1865.

AFS 202 African American History II (3) Examines the lives of African Americans from emancipation to the present.

AFS 222 Black Nationalism in America (3) Black Nationalism as an aspect of African American political and cultural belief receives attention here. Major figures include Richard Allen, David Walker, Henry M. Turner, Marcus Garvey and others.

AFS 230 Black Women in Literature (3) A study of black women writers in Africa and the African Diaspora.

AFS 240 Dynamics of Racism (3) Racism, its social connection to human physical difference (i.e. race) studied. References made to African/European relations, development of racist thought, major sociological models used in United States, re: race relations.

AFS 305 Survey of African American Literature (3) Prerequisite: ENG 122. Literature by people of African descent receives selective attention: representative African, Latin American, Caribbean, African American works are explored. Genres such as political tract, novel, essay, autobiography, folk literature are considered at various historical junctures.

AFS 332 Pan-Africanism (3) Traces the development of Pan-Africanism on the African Continent and its effects in African American, Latin American and Caribbean contexts.

AFS 340 The Black Family (3) A social system approach to the study of the African American family, dynamics of family relationships and effects of social, political and economic institutions on black family life.

AFS 360 Music and the Black Experience (3) The historical, thematic and stylistic development of black music from ancient Africa to the present.

AFS 386 Modern African World (3) Comparison of various nationalist movement of the African Continent that led to liberation and independence and emphasis on African experience since the 16th Century.

AFS 396 African and African American World Views (3) African and African American world view. A study of the philosophy of people of African descent from ancient Africa to the New World.

AFS 399 Community Study Project (1-4) Do field work in a community-based project in housing, education or social services. Repeatable, maximum of four credits.

AFS 420 African American Urban Politics (3) Course examines the concept of Black Power within the context of American government and laws. The case of the black mayor in an urban environment is carefully assessed, presenting obstacles and opportunities.

AFS 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

AFS 456 Leadership and the Black Church (3) Investigates the role of the Black Church in the development of the African American family, philosophy and leadership style from slavery to the present.

AFS 486 Current Issues in Multicultural Education (3) Explores different pedagogical and methodological strategies for understanding and teaching multicultural and diversity issues in the classroom.

AFS 490 Seminar in Black Studies (3) Prerequisites: AFS 100, AFS 104, AFS 201, AFS 202 or consent of instructor. Preparation for advanced reading and research in black studies. Topics vary with instructor, but regularly address issues of current interest. Consultation on research project chosen by student is also required. Repeatable, under different subtitles.

AFS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

AFS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ANT - Anthropology

ANT 100 Introduction to Anthropology (3) An introduction to archaeology, physical and cultural anthropology and linguistics, emphasizing the comparative approach and an evolutionary perspective.

ANT 110 World Cultures (3) Analyze selected studies of several cultures representing the diversity of human lifestyles around the world. Focus on the anthropological interpretation of cultural similarities and differences.

ANT 120 World Archaeology (3) Offers a broad background in prehistoric archaeology with a review of important sites around the world. Emphasis will be on anthropological interpretation of archaeological materials, the evolution of past cultures and cultural processes.

ANT 121 Archaeology of Colorado (3) Study of Colorado Native American peoples from ancient mammoth hunters to those encountered by the first Spanish explorers. Environmental and cultural adaptations emphasized.

ANT 130 Introduction to Physical Anthropology (3) A course in evolutionary theory, primate biology, human paleontology and human adaptation. Focus is on the evolution of the human form and the impact of cultural practices on our evolutionary biology.

ANT 210 Field Methods in Cultural Anthropology (3) Prerequisites: ANT 100, ANT 110, GEOG 100, SOC 100 or equivalent. Introduction to fieldwork methods in cultural anthropology. Study ethnographic techniques through first-hand investigation of other cultures.

ANT 220 Archaeological Research Methods (3) Prerequisite: ANT 100 or ANT 120 or equivalent. Review field methods and laboratory techniques utilized in prehistoric archeology. Topics include locational analysis, stratigraphy, typological analysis, dating techniques and research publication.

ANT 230 Anthropometrics (3) Learn skills of measuring and analyzing information on human biological variability. Topics include the analysis of physique, habitual activity analysis, health screening and statistical techniques for describing samples of data.

ANT 310 World Area Studies (3) Prerequisite: Choose one of the following: ANT 100, ANT 110, GEOG 100, SOC 100 or equivalent. The cultural anthropology of selected world regions (Africa, Asia, Europe, Oceania, North America). Repeatable, maximum nine credits under different subtitles.

ANT 311 Latin American Cultures (3) Prerequisite: ANT 100 or ANT 110 or equivalent. A survey of the various Latin American cultures of the New World with a special emphasis on the popular cultures of the region. Students will also have the opportunity to do research in the Latin communities of Weld County.

ANT 312 North American Indians (3) Survey the culture areas of Native American groups in North America, with a focus on the United States.

ANT 313 Modernization and Development (3) Prerequisite: Choose one of the following: ANT 100, ANT 110, GEOG 100, SOC 100 or equivalent. Study the processes by which cultures change and modernize, focusing on economic, political, legal and symbolic concerns in developed and developing nations.

ANT 314 Sex Roles in a Cross-Cultural Perspective (3) Study biologically and culturally determined gender role differences by comparing sex-related behavior in a variety of cultures.

ANT 315 Life History and Culture (3) A course in ethnographic writing focusing on methods of life history/life cycle research and analysis. Students will learn cultural interviewing techniques and will complete a written life history.

ANT 317 Contemporary Native American Issues (3) Deals with the cultural, historical, social, political and legal analysis of the status of contemporary American Indians in the United States

ANT 318 Native American Women (3) Prerequisite: ANT 312. Examine the role and status of Native American women. The traditional roles, the changes that have occurred as a result of contact and the contemporary period are examined.

ANT 321 New World Archaeology (3) Prerequisites: ANT 100 or ANT 120, or equivalent. Study selected prehistoric American Indian cultures with an anthropological focus. This course covers the time from the peopling of the New World to European discovery.

ANT 323 The Origins of State Societies (3) Prerequisite: ANT 100 or ANT 120 or equivalent. A comparative study of the rise of state societies throughout the world with focuses on the Near East, Africa, Asia, South America and Mesoamerica.

ANT 324 Southwest United States Archaeology (3) Prerequisite: ANT 100 or ANT 120 or equivalent. Southwest United States archaeology reviewed from Paleo-Indian to historic times. Emphasis on environment and culture adaptation, particularly of Colorado's ancient Pueblo Anasazi peoples.

ANT 325 Fieldwork in Archaeology (4) Prerequisite: ANT 100 or ANT 120 or equivalent. Required laboratory arranged. Introduction to archaeological field methods through participation in an archaeology field school experience. Students will participate in an on-going archaeological research project for four weeks during the summer. Lab fees required for field maintenance.

ANT 330 Forensic Anthropology (3) Prerequisite: ANT 130 or ANT 120 or SOC 141 or equivalent. Required laboratory arranged. A course in human osteology emphasizing skeletal anatomy and the identification of age, sex, stature, pathology and race in skeletal material. Archaeological, paleontological and forensic applications will be presented.

ANT 331 Human Population Biology (3) The evolutionary genetics and demographics of modern human populations.

ANT 408 Workshop in Anthropology (3-12) Consent of instructor. Topics in practicing anthropology. Group experiences in working on selected problems in anthropology. Repeatable, under different subtitles.

ANT 420 Scientific Research in Archaeology (3) Required laboratory arranged. An advanced methods and scientific research and writing course dealing with data collection, analysis and interpretive techniques used in archaeology. The course employs an interdisciplinary, field and laboratory-based, hands-on approach.

ANT 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ANT 430 Human Musculoskeletal Systems (3) This course is a detailed study of the structure and functions of the human musculoskeletal system. A series of lecture demonstrations will guide students as they model the skeleton and the individual muscles in clay, creating an anatomical model of the human figure as they progress.

ANT 470 Seminar in Anthropology (3) Prerequisite: Choose one of the following: ANT 100, ANT 130, GEOG 100, SOC 100 or equivalent. A seminar exploring diverse topics surrounding the question of defining human nature. Repeatable, maximum nine credits under different subtitles.

ANT 480 Theory and Practice in Anthropology (3) Prerequisite: ANT 100 or equivalent. A seminar on the relations between anthropological theories of culture and social process and the practice of anthropological observation and analysis.

ANT 492 Internship (3-12) Prerequisites: 9 hours of ANT courses. Anthropological field experiences in ethnology, museology, education, government or politics. Repeatable, up to 12 credits.

ANT 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different sub-titles.

ANT 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ANT 520 Scientific Research in Archaeology (3) Prerequisite: ANT 220. Required laboratory arranged. An advanced methods and scientific writing course dealing with analytical procedures and interpretive techniques used in modern archaeology. The course will stress interpretation utilizing comparative collections, reference resources and scientific instruments.

ANT 525 Fieldwork in Archaeology (4) Prerequisite: ANT 100 or ANT 120 or equivalent. Required laboratory arranged. Introduction to archaeological field methods through participation in an archaeology field school experience. Students will participate in an on-going archaeological research project for four weeks during the summer. Fee required.

ANT 570 Seminar in Anthropology (3) Prerequisite: Choose one of the following: ANT 100, ANT 130, GEOG 100, SOC 100 or equivalent. A seminar exploring diverse topics surrounding the question of defining human nature. Repeatable, up to nine credits, under different subtitles.

ANT 580 Theory and Practice in Anthropology (3) Prerequisite: ANT 100 or equivalent. A seminar on the relations between anthropological theories of culture and social process and the practice of anthropological observation and analysis.

ANT 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ART - Visual Arts

ART 171 Computer Based Technology in Visual Arts (2) Principles and practices in applying computer graphics in the visual arts. General computer orientation: hardware/software configuration. Peripherals. Students will create electronically generated art graphics using newest electronic technologies. No experience in computer science is required. Fee required.

ART 181 History of Art I (4) Designed to give a general survey of Western art from Pre-Historic (35000 B.C.) through the Medieval Period (A.D. 1400). Emphasis is placed on major movements/civilizations, methods of analysis, historical and cultural context, changes and development of styles.

ART 182 History of Art II (4) Designed to give a general survey of Western art from the Proto-Renaissance (A.D. 1265) through Modern art of the 20th century. Emphasis is placed on major movements, methods of analysis, historical and cultural context, changes and development of styles.

ART 183 Art I (3) Corequisite: ART 181. Study the elements of line, shape and space as they relate to drawing, color theory, two-dimensional and three-dimensional design. The course will integrate the fundamentals of art and experiences in conceptualization and visual problem solving. Fee required.

ART 184 Art II (3) Corequisite: ART 182. Study the elements of texture, form and motion as they relate to drawing, color theory, two-dimensional and three-dimensional design. The course will integrate the fundamentals of art and experiences in conceptualization and visual problem solving. Fee required.

ART 190 Art Appreciation (3) Non-majors only. Required for Elementary Education certification. Introduction to further enhance an understanding and appreciation of the functional and expressive nature of architecture, painting, sculpture and the applied arts.

ART 210 Ceramics for Non-Art Majors (3) Explore the historical development of pottery and the contemporary craftsman's attitude toward clay, in addition to receiving instruction in basic design, hand building of ceramic forms and methods of firing. Fee required.

ART 211 Ceramic Design (3) Design, construct and fire ceramic forms using several different approaches to hand building and firing. Receive general background in the history of ceramic arts, clays, glazes and methods of firing. Fee required.

ART 212 Wheel Throwing (3) Begin throwing on the potter's wheel. Learn techniques of centering, opening and raising clay into basic pottery forms. Fee required.

ART 221 Introduction to Fiber Arts (3) A studio course involving several fiber construction processes and fabric surface treatments in two or three dimensions. Fee required.

ART 223 Weaving (3) Introduction to the fundamentals of loom weaving as an art form, emphasizing applied design problems. Fee required.

ART 230 Drawing for Non-Art Majors (3) Study of the history of the development of drawing and its importance as an expressive medium in the evolution of mankind. Studio experience in drawing fundamentals.

ART 231 Introduction to Painting (3) Prerequisites: ART 183, ART 184. Fundamentals of painting. Materials and techniques with basic procedures of studio painting using both oil and watermedia. Fee required.

ART 234 Drawing I (3) Prerequisites: ART 183, ART 184. Deal in depth with concepts, techniques and materials. Problem areas include composition, content, technical concerns, use of color and a range of material use from traditional to contemporary alternatives. Fee required.

ART 240 Lettering (3) Receive studio practice and study the history of lettering and manuscripts. For the student with little or no experience in art.

ART 241 Basic Crafts Design (3) Required for Art Education majors. Recommended for Education, Special Education and Recreation majors. Experience on introductory level of at least several school craft areas; clay, fibers, paper, textiles, plaster. Fee required.

ART 248 Art for the Exceptional Child (2) Overview characteristics, needs and instruction adaptations suitable for teaching Visual Arts to the exceptional learner. Fee required.

ART 252 Printmaking I (3) Prerequisites: ART 183 and ART 184 or equivalent. Introduction to intaglio printmaking techniques, including drypoint, engraving and etching in black and white. Traditional and experimental approaches are explored. Fee required.

ART 261 Sculpture I (3) Introduction to materials, processes and concepts fundamental to making sculpture. Fee required.

ART 265 Jewelry (3) Introduction to materials, processes and concepts basic to making jewelry. Fee required.

ART 270 Graphic Arts I (3) Prerequisites: ART 183 and ART 184. General survey and laboratory for beginning to intermediate students. Design, layout and conceptual thinking for the applied graphic arts. Fee required.

ART 271 Basic Photography (3) Instructor consent. Learn fundamentals of photography. Study principles of black and white photography, including exposing, processing, printing and finishing techniques. Fee required.

ART 290 Visual Thinking and Visual Images (3) Explore concepts of visual thinking, communication and the meaning of visual images as icons, signs and symbols. Analyze visual images and art objects for consideration of theme, subject matter, purpose and context. Learn and apply strategies for visual problem solving. Fee required.

ART 308 Workshop in Art (1-4) Arts workshops are for the study of specialized areas in art, art education, art history, graphic arts and related fields. Specific workshop content is determined by subtitle. Repeatable, under different subtitles.

ART 312 Wheel Throwing (3) Prerequisite: ART 212. Learn to throw more challenging ceramic forms on the potter's wheel. Gain experience in the loading and firing of ceramic kilns. Fee required. Repeatable, can be taken two times.

ART 314 Ceramic Equipment and Materials (3) Prerequisite: ART 212 or equivalent. An investigation of ceramic materials, kilns and studio equipment that will provide the prospective potter or teacher with essential technical and practical knowledge. Fee required.

ART 321 Fiber Design (3) Prerequisite: ART 221. Continue the study and exploration of fiber construction and fabric surface treatments with emphasis on their design applications. Fee required.

ART 332 Watermedia Painting (3) Prerequisite: ART 231. Exploration of and rendering skills in watercolor and/or acrylic, gouache. Repeatable, up to two times.

ART 333 Life Drawing (3) Prerequisite: ART 184. Fundamentals of life drawing emphasizing proportions, anatomy and aesthetic relationships. Fee required. Repeatable, up to one time.

ART 340 Clinical Experience: K-12 Art (2) For Art Education majors. Full admission to PTEP or certification at the undergraduate level required. Consent of instructor. Gain practical experience in the classroom with a variety of materials, subject matter and with varying age groups. Requires classroom observation and participation with weekly seminar.

ART 344 Methods of Teaching Art in the Elementary School (1) Prerequisite: ART 190. Full admission to PTEP or certification at the undergraduate level. Not for Art Education majors. Gain practical experience in a wide variety of media suitable for the elementary classroom. Study selected philosophies of art in education, teaching techniques, procedures, materials and evaluation. Fee required.

ART 353 Intaglio Printmaking (3) Prerequisite: ART 252 or equivalent. Continuing investigations in intaglio printmaking techniques, including aquatint and color printing. Individual imagery and technical development are emphasized. Repeatable, may be taken two times. Fee required.

ART 355 Silkscreen Printmaking (3) Prerequisite: ART 252 or equivalent. Study the silkscreen stencil process of printmaking, including the use of photosensitized screens and color on all levels. Repeatable, may be taken three times. Fee required.

ART 356 Monotypes (3) Prerequisites: ART 183 and ART 184 or equivalent. Investigations in techniques of creating monotypes and monoprints (one-of-a-kind printed images). Individual imagery and technical development are emphasized. Repeatable, may be taken two times. Fee required.

ART 357 Artist's Books: Structures and Concepts (3) Prerequisites: ART 183, ART 184 or equivalent. Investigations in traditional and experimental approaches to creating handmade books. Original solutions and craft are emphasized. Repeatable, may be taken two times. Fee required.

ART 361 Sculpture II (3) Prerequisite: ART 261. Basic instruction in specific sculptural processes including modeling, casting, welding, fabrication, carving, etc. Repeatable, up to two times. Fee required.

ART 370 Graphic Arts II (3) Prerequisite: ART 270. General survey and laboratory dealing with dynamics of design, applied and conceptual. For intermediate to advanced students. Fee required.

ART 371 Photographic Design (3) Prerequisite: ART 271. Study and apply principles and theories of vision and perception as related to black and white and color photography. Fee required.

ART 374 Illustration (3) Prerequisites: ART 183, ART 184, ART 231. General survey and laboratory. Exploration of design, color and experimental techniques as applied to two- and three-dimensional illustration. For intermediate students. Fee required.

ART 375 Publication Production (3) Prerequisite: ART 370. Investigate graphic reproduction processes as related to the printing industry. Study the principles of producing publications including design, layout, copy preparation, photo conversion, image carriers, image transfer and finishing methods. Fee required.

ART 376 Typography (3) Prerequisite: ART 370. Survey and exploration of type and letter-forms. Origins and applications of type and the aesthetics of type. For the intermediate student. Fee required.

ART 381 Tribal Art (4) Study the arts, concepts and culture of tribal societies, particularly African, Oceanic/South Seas and American Indian.

ART 383 Pre-Columbian Art (4) Study the history and arts of Central America, emphasizing the Olmec, Maya, Mixtec, Zapotec, Aztec and Toltec civilizations and related subgroups.

ART 384 History of the Goddess (3) Explore inherited images and ideas of the Goddess through a multimedia approach: slides, videos, texts, guest speakers, journaling, group sharing and a personal creative hands-on project.

ART 385 Medieval Art (4) A detailed study of 12th, 13th and 14th century European art as it relates to medieval philosophy and its cultural context.

ART 386 Renaissance Art (4) Study in detail the humanistic aspects of Renaissance art 1265-1600, including the evolutionary developments of Mannerism and the beginnings of Baroque art.

ART 387 Artists of Color (3) Detailed survey of the work of artists of color from the 19th Century through the 20th Century in the United States. Exploration of racial discrimination and stereotyping and the history canon.

ART 388 19th Century Art (4) Follow the development of European art through the 19th century from the Revivalist styles to the brink of Modern Art.

ART 389 Twentieth Century Art (4) An in-depth study of the major art movements of the 20th century from the development of cubism to the present.

ART 390 Women Artists (3) Detailed survey of the work of women artists from the Middle Ages to the 20th Century. Exploration of gender issues, feminism, discrimination, and the art history canon included.

ART 395 Special Topics in Art (1-4) Study special topics in the visual arts. Specific course content is determined by subtitle. Repeatable, under different subtitles.

ART 411 Ceramic Design (3) Prerequisite: ART 211. Intermediate level design of handbuilt ceramic forms. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, up to two times. Fee required.

ART 415 Ceramic Studio (1-3) Consent of instructor. Individualized or specialized study on specific topics in ceramics. Repeatable, up to two times. Fee required.

ART 421 Fiber Design (3) Prerequisite: ART 321. Concentration on an advanced level in a selected process involving fibers. To provide more time for personal design development and expertise. Repeatable, up to two times. Fee required.

ART 422 Directed Studies in Art (1-4) Art Majors only. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ART 423 Weaving (3) Prerequisite: ART 223. Continue the study of loom weaving, particularly loom-controlled techniques. Repeatable, up to two times. Fee required.

ART 425 Fibers Studio (1-3) Consent of instructor. Individualized or specialized study on specific topics in fibers. Repeatable, up to two times. Fee required.

ART 431 Oil Painting (3) Prerequisite: ART 231. Development of individual expression and mastery of the medium. Emphasis on appropriate use of medium toward creative ends. Repeatable, up to two times. Fee required.

ART 434 Drawing II (3) Prerequisite: ART 234. Designed to encourage exploration of a broad variety of sources for drawing images, drawing concepts and thematic interpretation and expression. Designed for advanced drawing students. Repeatable, up to two times. Fee required.

ART 435 Drawing Studio (1-3) Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, up to two times.

ART 436 Painting Studio (1-3) Consent of instructor required. Individualized or specialized study on specific topics in painting. Repeatable, up to two times.

ART 437 Computer Art (3) Principles and practices for applying computer graphics to the visual arts. In this class the participants will create art projects with the use of the computer. They will gain some knowledge about hardware and software configurations, and trends in computer art and technology. Fee required.

ART 440 Foundations of Art Education (2) Prerequisite: Full admission to PTEP or certification at the undergraduate level. An in-depth study of the field of art education and pre-professional related areas including: learning theory, aesthetics and psychology.

ART 441 Cultural Studies in the K-12

Curriculum (2) Prerequisites: ART 181 and ART 182. Full admission to PTEP or certification at the undergraduate level. Teaching art based on cultural and historical context. Integrates the cultural study of art with art history, aesthetics and the processes of critical inquiry as a basis for determining meaning in art.

ART 442 Curriculum and Instruction in Art: Studio Strategies (2) Full admission to PTEP or certification at the undergraduate level. Study curriculum development and art learning activities appropriate for instruction in elementary and secondary art education. Fee required.

ART 443 Computer Technology in Art Education (2) Consent of Instructor. Full admission to PTEP or certification at the undergraduate level. This course is designed to provide prospective teachers with principles and practices in applying computer graphics for educational purposes in the visual arts; integrating art production with general knowledge. Fee required.

ART 455 Printmaking Studio (1-3) Consent of Instructor required. Individualized or specialized study on specific topic in printmaking. Repeatable, up to two times. Fee required.

ART 460 Sculpture Studio (1-3) Prerequisites: ART 261, ART 361. Self-directed studies in selected sculptural modes or processes. Repeatable, up to two times. Fee required.

ART 461 Sculpture III (3) Use of increasingly skilled or sophisticated techniques/processes with greater emphasis on idea, form and content. Repeatable, up to three times. Fee required.

ART 464 Jewelry Studio (1-3) Prerequisite: ART 265. Consent of instructor required. Individualized or specialized study on specific topic in jewelry. Fee required. Repeatable, up to three times.

ART 465 Advanced Jewelry (3) Prerequisite: ART 265. Extension of increasingly skilled and sophisticated techniques/processes in jewelry and metalwork. Repeatable, up to two times. Fee required.

ART 466 Visual Arts Student Teaching Seminar (1) Corequisite: EDFE 444. Full admission to PTEP or certification at the undergraduate level. This seminar is designed to provide persons actively involved in the student teaching program in Visual Arts with a support system and pertinent information to assist them during their field experience.

ART 471 Computer Graphics (3) The course is designed to introduce principles and practices in computer graphics and to develop knowledge related to design and page layout. Fee required.

ART 472 Photography Studio (1-3) Instructor consent. Individualized or specialized study in photography. Repeatable, up to two times. Fee required.

ART 473 Advertising Design (3) A studio and workshop approach to concept, layout and finished art/design for applied graphics in the advertising profession. Repeatable, up to three times. Fee required.

ART 474 Graphic Studio (1-3) Consent of instructor. Individualized or specialized study on specific topics in graphics. Repeatable, up to two times. Fee required.

ART 475 Color Photography — Transparencies (3) Prerequisite: ART 271. Learn color theory as related to reversal films. Plan, expose, process and finish transparency films for multi-projector visual presentations. Fee required.

ART 476 Advanced Black and White Photography (3) Prerequisite: ART 271. Improve black and white photographic skills. Learn experimental, interpretive and advanced camera and printing techniques. Fee required.

ART 477 Photographic Illustration and Lighting Techniques (3) Prerequisite: ART 271. Study studio lighting principles for black and white and color photography. Learn studio techniques for advertising, architectural, industrial-technical, portrait and commercial applications. Fee required.

ART 479 Color Photography — The Print (3) Prerequisites: ART 271, ART 475. Discover and apply current methods and techniques of color printing from negatives and transparencies. Fee required.

ART 490 Art Theory and Criticism (3) Make critical studies of art theory and the art object. Analyze the interrelationships of theme, content, context, formal elements and process toward a basis for critical judgment.

ART 492 Internship in Art (1-5) Art majors only. Supervised professional activity in major fields or related career areas. Spend a minimum of 30 clock hours per credit hour on the internship. A written evaluation and a written report must be filed with the instructor of record. A maximum of five credits of internship can be taken in any semester. Repeatable, under different subtitles.

ART 500 Contemporary Issues in Art (1-3) In-depth inquiry into contemporary issues in the visual arts. Analytical and interpretive research on selected topics, including their antecedents and their implications. Unlimited repeatability.

ART 508 Workshop (1-4) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different sub-titles.

ART 512 Wheel Throwing (3) Prerequisite: ART 312 or equivalent. Develop an individual approach to wheel thrown ceramic forms at an advanced level. Exploration of various methods of ceramic decoration and firing. Repeatable, up to two times. Fee required.

ART 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ART 514 Ceramic Equipment and Materials (3) Prerequisite: ART 512 or equivalent. An investigation of ceramic materials, kilns and studio equipment that will provide the prospective potter or teacher with essential advanced level technical and practical knowledge. Fee required.

ART 521 Fiber Design (3) Advanced design techniques in fibers. Repeatable, up to two times. Fee required.

ART 523 Weaving (3) Concentrate in a selected area of weaving on an advanced design concept. Repeatable, up to two times. Fee required.

ART 532 Watermedia Painting (3) Advanced work in specific watermedia. Development of thematic imagery and personal technical skills. Repeatable, up to two times.

ART 533 Life Drawing (3) Prerequisite: ART 333 or equivalent. Advanced life drawing emphasizing development of personal interpretations of the human form. Repeatable, up to two times. Fee required.

ART 537 Computer Art (3) Principles and practices for applying computer graphics to the visual arts. In this class the participants will create art projects with the use of the computer. They will gain some knowledge about hardware and software configurations, and trends in computer art and technology. Fee required.

ART 541 Craft Design (3) Relate basic art and crafts to the field of art education, education and recreation, emphasizing materials, instructional techniques, tools and facilities. Read literature appropriate to area of study. Repeatable, up to two times. Fee required.

ART 553 Advanced Intaglio Printmaking (3) Prerequisite: ART 353 or consent of instructor. Advanced investigations in intaglio printmaking techniques, including color printing. Individual imagery and technical mastery will be emphasized. Repeatable, may be taken three times. Fee required.

ART 555 Advanced Silkscreen Printmaking (3) Prerequisite: ART 355 or consent of instructor. Intensive experience in selected techniques of screen printing with the emphasis on individual development including the textile screen print. Repeatable, up to two times. Fee required.

ART 556 Advanced Monotypes (3) Prerequisite: ART 356 or consent of instructor. Advanced investigations in monotype and monoprint techniques. Individual imagery and technical mastery are emphasized. Repeatable, may be taken three times. Fee required.

ART 557 Advanced Artist's Books: Structures and Concepts (3) Prerequisite: ART 357 or consent of instructor. Advanced investigations in traditional and experimental approaches to creating artist's books. Emphasis is on development of original solutions and mastery of traditional and innovative techniques. Repeatable, may be taken 3 times. Fee required.

ART 561 Graduate Sculpture (3) Self directed or assigned work in specific areas of sculpture. Advanced technical skills emphasized. Repeatable, up to two times. Fee required.

ART 571 Computer Graphics (3) The course is designed to introduce principles and practices in computer graphics and to develop knowledge related to design and page layout. Fee required.

ART 575 Color Photography — Transparencies (3) Prerequisite: ART 271 or equivalent. Improve and develop individual creative skills in color photography using transparency materials. Learn to plan and produce multi-projector presentations using current materials, tools and processes. Fee required.

ART 576 Advanced Black and White Photography (3) Prerequisite: ART 271 or equivalent. Refine and improve individual skills in black and white photography. Study film and print manipulation with silver and non-silver materials. Fee required.

ART 577 Photographic Illustration and Lighting Techniques (3) Prerequisite: ART 271 or equivalent. Learn creative lighting techniques for illustration and portraiture. Study available light and studio lighting for black and white and color photography. Fee required.

ART 595 Special Topics in Art (1-4) Study special topics in the Visual Arts. Specific course content is determined by subtitle. Repeatable, under different subtitles.

ART 600 Graduate Research in Art (3)

Prerequisite: ART 500. Learn appropriate art, art historical and art education research methodology and procedures for inquiry. Present research according to approved style guidelines. Review Art program and Graduate School requirements.

ART 611 Ceramic Design (3) Design and assembly of handbuilt ceramic forms at an advanced level. An exploration of stoneware, raku and sodium vapor firing processes. Repeatable, up to two times. Fee required.

ART 615 Ceramic Studio (1-3) Consent of instructor required. Individualized or specialized study on specific topics in ceramics. Repeatable, up to two times. Fee required.

ART 621 Fiber Design (3) Prerequisite: ART 521. Continue advanced study of techniques and design concepts in fibers. Repeatable, up to two times. Fee required.

ART 622 Directed Studies in Art (1-4)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ART 623 Weaving (3) Prerequisite: ART 523. Continue advanced study of techniques and design concept in a concentrated area of weaving. Repeatable, up to two times. Fee required.

ART 625 Fibers Studio (1-3) Consent of instructor. Individualized or specialized study on specific topic in fibers. Repeatable, up to two times.

ART 631 Oil Painting (3) Prerequisite: ART 431 or equivalent. Advanced problems in oil painting. Emphasis on development of personal imagery and working in series. Repeatable, up to two times.

ART 634 Drawing (3) Advanced work in development on thematic imagery, inventive media, unique and personal solutions to visual problems. Repeatable, up to two times.

ART 635 Drawing Studio (1-3) Consent of instructor required. Individualized or specialized study on specific topics in drawing. Repeatable, up to two times.

ART 636 Painting Studio (1-3) Consent of instructor required. Individualized or specialized study on specific topic in painting. Repeatable, up to two times.

ART 640 Literature of Art Education (3) Survey historical and contemporary literature on theory, research and practice in art education and related areas.

ART 641 Art Curriculum and Instruction: Cultural Studies (3) Study methods for teaching art history. Research art analysis, art criticism and art theory for developing procedures for instruction.

ART 642 Art Curriculum and Instruction: Studio Methods (3) Research and develop studio art content, processes and sequencing appropriate for the elementary and secondary art curriculum.

ART 644 Learning Experiences in Elementary Art Education (3) Research selected readings in art education, instructional methods, child development in art, curriculum and evaluation and get practical experience with media suitable for use in the elementary school. Fee required.

ART 646 Seminar in Art Education (3) Inquiry into historical and current research related to art in education. An in-depth study of the issues raised by the implications of this research. Repeatable, under different subtitles.

ART 648 Art and the Exceptional Student (2)

Study art for the exceptional in depth. Involvement in the review of literature and research field in the development of an art curriculum specific to individual interest area. Fee required.

ART 655 Advanced Printmaking Studio (1-3) Consent of instructor. This class provides a working environment for large scale printmaking by utilizing all facets of printmaking techniques, serious edition printing and special projects. Repeatable, up to two times. Fee required.

ART 660 Graduate Sculpture Studio (1-3) Self-directed studies in selected sculptural modes or processes. Repeatable, up to two times. Fee required.

ART 661 Advanced Graduate Sculpture (3) Select problems in the creation of sculpture with emphasis on critical and technical competencies. Repeatable, up to two times. Fee required.

ART 672 Photography Studio (1-3) Instructor consent required. Advanced individualized or specialized study in photography for graduate students. Repeatable, up to two times. Fee required.

ART 680 Seminar in Art History (1-4) Discuss advanced and specialized art historical topics. Take concurrently with 300 level art history course. Subject area determined by subtitle. Repeatable, under different subtitles.

ART 690 Art Theory, Analysis and Criticism (3) Research into the theoretical and critical study of art. Analyze the interrelationships of theme, content, context, intentionality, the formal elements and processes for interpretation and critical judgment.

ART 692 Internship in Art (1-5) Graduate art majors only. Supervised professional activity in major fields or related career areas. Spend a minimum of 30 clock hours per credit hour on the internship. Two copies of a written evaluation and a written report are required (to be filed with the instructor of record and the graduate coordinator). A maximum of five credits of internship can be taken in any semester. Repeatable, under different subtitles.

ART 699 Thesis (1-6) Prerequisite: ART 600. A written thesis is required of all master's degree candidates in visual arts. The final report must be approved by the supervising committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

AS - Aerospace Studies

AS 101 The Air Force Today I (2) Study military customs and courtesies, officership, national power and the United States power structure; organization, mission and resources of the Air Force and its strategic, tactical, military airlift and overseas commands.

AS 102 The Air Force Today II (2) Organization, mission and resources of Air Force support commands; coordination between Air Force Reserves, Air National Guard, Air Force, Army and Navy as they are used to achieve national goals.

AS 201 The Development of Air Power I (2) History of development of air power and doctrine from balloons to World War II with emphasis on the role of air power; learn weaknesses and strengths of communicative skills.

AS 202 The Development of Air Power II (2)

Examine development and role of air power from World War II to present; Berlin Airlift, Korean War, Mideast, and Vietnam War; study current strategic policy, continue to examine communicative skills.

AS 301 Air Force Leadership and Management I (3)

Study fundamentals of military leadership and management; develop decision-making, planning, leadership and management skills through examination of case studies and various approaches to leadership; develop written and oral communicative skills.

AS 302 Air Force Leadership and Management II (3)

Examine Air Force management strategy and tactics, group dynamics, performance appraisals, human behavior factors in management; develop professional skills required of Air Force junior officers; further develop communicative skills.

AS 401 National Security Forces in Contemporary American Society I (3)

Study national security policy and its issues, processes and development since World War II; role of professional military leaders in a democratic society; develop officership and professionalism; enhance communicative skills.

AS 402 National Security Forces in Contemporary American Society II (3)

Impact of international and regional security issues on policy, approaches to national security and its priorities in the 80's; study international law and military justice system; further develop communicative skills.

AST - Astronomy

AST 100 General Astronomy (4) (3 lecture, 2 laboratory) The universe and our place in it. No mathematics background required. Fee required.

AST 301 Classical Astronomy (3) (2 lecture, 2 laboratory) Our picture of the universe based on optical observations from prehistory to 1950. Fee required.

AST 302 Modern Astronomy (3) (2 lecture, 2 laboratory) The complex and violent universe revealed by radio astronomy, planetary exploration and satellite observatories. Fee required.

AST 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

AST 500 Survey of Astronomy (3) (2 lecture, 2 laboratory) A non-mathematical survey of contemporary astronomy emphasizing areas of current research activity. Fee required.

AST 595 Special Topics in Astronomy (1-4) An opportunity to explore areas of astronomy beyond the scope of existing department offerings. Repeatable, under different subtitles.

AST 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BA - Business Administration

BA 100 American Business System (3) For non-business majors. Understand how the American business system works and compare it with business systems in other nations. Discuss how business functions and the impact of current events. (F,S)

BA 101 Business Computing (3) (Laboratory arranged) An activity course to develop students' knowledge and skills in computer literacy. Focus is on developing competencies in spreadsheets, graphics, word processing and operating systems. (F,S)

BA 205 Business Communications (3) (Laboratory arranged) Prerequisite: ENG 122. An activity course with a problem-solving approach to composition emphasizing planning, organizing, and presenting written business communications for decision making. Use of computer software programs integrated in the writing of business correspondence and reports. (F,S)

BA 251 International Business (3) A survey course in international business and doing business in the global economy. Non-technical introduction to global business operations and planning, including investment issues, comparative management, technology impact, competition, cultural diversity and legal issues.

BAAC - Accounting

BAAC 220 Principles of Accounting I (3) Prerequisite: BA 101 or take concurrently. An introduction to basic principles of accounting. The accounting cycle is examined and basic accounting principles are applied to recording, classifying, reporting and interpreting financial information for service and merchandising types of businesses. Manual and computer based systems are investigated. (F,S)

BAAC 221 Principles of Accounting II (3) Prerequisite: BAAC 220. A continuation of BAAC 220 to study basic accounting principles as they apply to the preparation and interpretation of accounting information for business organizations and managerial use of information. (F,S)

BAAC 320 Intermediate Accounting I (3) Prerequisite: BAAC 221 with a minimum grade of "C." Juniors or above. An activity course stressing the conceptual framework of accounting, a review of the accounting process, statement presentation of current assets and property, plant and equipment. (F,S)

BAAC 321 Intermediate Accounting II (3) Prerequisite: BAAC 320 with a minimum grade of "C." Juniors or above. An activity course with emphasis on intangible assets, current and long-term liabilities, investment, stockholders' equity, pensions, leases and income taxes. (F,S)

BAAC 323 Cost and Managerial Accounting I (3) Prerequisite: BAAC 221 with a minimum grade of "C." Juniors or above. Accumulating and analyzing information for management purposes. Topics include product costing, cost-volume-profit relationships, budgeting and performance evaluation. (F,S)

BAAC 324 Cost and Managerial Accounting II (3) Prerequisite: BAAC 323 with a minimum grade of "C." Juniors or above. Continuation of BAAC 323 - an activity course; includes capital budgeting decision models; planning and control systems; and advanced topics in cost behavior, cost allocation and product costing.

BAAC 326 Governmental and Institutional Accounting (3) Prerequisite: BAAC 221 with a minimum grade of "C." Juniors or above. This is an activity course involving the study of accounting processes and procedures used by state and local governmental units and other selected not-for-profit entities. (F,S)

BAAC 327 Managerial Accounting (3) Prerequisite: BAAC 221. For non-accounting majors only. Juniors or above. No graduation credit for accounting majors. This is a theory course studying the use of information derived from an accounting system for effective management decision making, cost analysis and budgeting management control and evaluation. (F,S)

BAAC 328 Accounting Systems (3) Prerequisites: BACS 300 and BAAC 321 or take concurrently. Juniors or above. An activity course designed to study the processes and procedures by which an organization's financial information is recorded, processed, reported and disposed of in an efficient and orderly manner. (F,S)

BAAC 329 Introduction to Income Tax (3) Prerequisite: BAAC 220. Juniors or above. For non-accounting majors only. No graduation credit for accounting majors. An activity course that introduces common tax rules, problem areas and record-keeping requirements related to individuals and business. (S)

BAAC 420 Advanced Accounting I (3) Prerequisite: BAAC 321 with a minimum grade of "C." Juniors or above. Emphasis is on special topics including income recognition changes and correction cash flows, earnings per share, discontinued operations, partnerships, interim reporting, estates, trusts, insolvency and other selected topics. (F,S)

BAAC 421 Advanced Accounting II (3) Prerequisite: BAAC 321 with a minimum grade of "C." Juniors or above. An activity course covering business combinations, consolidated financial statements, branch operations, segmental reporting and foreign operations. (F,S)

BAAC 422 Accounting Directed Studies (1-3) Juniors or above. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BAAC 425 Auditing I (3) Prerequisite: BAAC 321 with a minimum grade of "C." Majors/Minors only. Juniors or above. This is an activity course covering an overview of procedures and techniques of auditing including auditor's report, internal control, evidence gathering, legal liability, statistical sampling and EDP. (F,S)

BAAC 426 Auditing II (3) Prerequisite: BAAC 425 with a minimum grade of "C." Juniors or above. A seminar course for the study of audit procedures for specific transaction cycles. Complete a simulated audit case.

BAAC 428 Income Tax I (3) Prerequisite: BAAC 320 with a minimum grade of "C." Juniors or above. An activity course that emphasizes individuals' tax reporting requirements. Topics include a review of tax policy, definitions of gross income, exclusions, deductions and disposition of property. (F,S)

BAAC 429 Income Tax II (3) Prerequisite: BAAC 428 with a minimum grade of "C." Juniors or above. An activity course that promotes additional understanding beyond a foundation course. Emphasis is on applying tax law to partnerships and corporations through use of basic research, tax returns and computers.

BAAC 492 Internship in Accounting (1-10) Juniors or above. Faculty coordinator's consent. Practical work experience allowing the intern the opportunity to utilize the theory of academic accounting courses. Credit for the internship is determined by the coordinator based on the type of work experience and time involved. S/U graded. Repeatable, maximum of nine credits.

BAAC 495 Special Topics in Accounting (1-3) Consent of instructor. Juniors or above. This seminar course explores advanced topics in accounting. Special topics will be specified by the instructor. S/U or letter graded. Repeatable, under different subtitles.

BACS - Computer Information Systems

BACS 285 Business COBOL Programming (3) Prerequisite: BA 101. Required laboratory arranged. An activity course exploring business programming applications using COBOL language. Topics include inputting, outputting, logic, tables, character processing, sequential processing and subroutines.

BACS 286 Structured Programming and Applications for Business (3) Prerequisite: BA 101. Required laboratory arranged. Study of programming languages as a systematic discipline based upon fundamental concepts of logic and procedural organization. Languages will focus upon those currently utilized in business and industry. Particular attention will be paid to software design in terms of reliability, maintenance and quality.

BACS 287 Graphical Interface Programming (3) Prerequisite: BA 101. Required laboratory arranged. This course studies modern programming languages that are geared primarily toward graphical user interfaces and interactive processing. An activity course that introduces students to the concepts of end-user computing, human factors in interface design, graphical programming environments and event-driven programming.

BACS 291 Business Statistics I (3) Prerequisites: BA 101 or concurrently and MATH 175 or MATH 124. Learn the use of statistics in business activities through techniques of descriptive statistics, sampling distributions, statistical estimation, tests of hypotheses and introduction to bi-variate linear regression. (F,S)

BACS 300 Information Systems (3) Prerequisite: BA 101. Majors/Minors only. Juniors or above. Topics include information systems technology, systems analysis, design and development. Managerial informational needs to support decision making are emphasized. (F,S)

BACS 380 Networking and Data Communications Systems (3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Required laboratory arranged. Juniors or above. This is an activity course involving the study of data communications and networks. Topics include history, media, hardware, software, standards, networks, analysis and design, distributed processing and network management.

BACS 381 Object Oriented Systems (3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Required laboratory arranged. Juniors or above. An activity course addressing object-oriented design and programming, systems development environments, emerging technologies and resulting business applications.

BACS 390 Business Statistics II (3) Prerequisites: BA 101, BACS 291, MATH 131 or MATH 176. Required laboratory arranged. Majors/Minors only. Juniors or above. A course designed to build on Statistics I foundations. Topics include hypotheses testing (using t-tests, ANOVA, Chi square and regression), exploratory data analyses and time series analyses. (F,S)

BACS 392 Systems Platforms (3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Juniors or above. Required laboratory arranged. An activity course covering the configuration, modification and development of applications in programming interfaces such as Windows, X-Windows, Windows NT and Motif. Netware and OS/2 platforms are explored.

BACS 395 Production Management (3) Prerequisites: BACS 291, MATH 131 or MATH 176. Co-requisite: BAMG 350. Required laboratory arranged. Majors/Minors only. Juniors or above. Emphasizes problems of managing resources, people, money and physical property in product and services production. Includes plant layout, inventory systems and control, scheduling and materials handling. (F,S)

BACS 422 Directed Studies (1-3) Consent of instructor required. Juniors or above. Individualized investigation under the direct supervision of a faculty member. This course does not substitute for required courses. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BACS 482 Management Support Systems (3) Prerequisite: BACS 286 or BACS 287 with minimum grade of "C." Required laboratory arranged. Juniors or above. An activity course for designing and implementing decision support, knowledge-based support and executive support systems. Topics include mathematical and descriptive modeling, knowledge acquisition, knowledge representation and relevant computer-based tools.

BACS 485 Database Management Systems (3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Required laboratory arranged. Seniors or above. An activity course covering the design, implementation and operation of database systems/applications. Topics include database processing, models, organizational planning, logical and physical design, implementation, data organization and data structures. (F)

BACS 486 Advanced Database Management (3) Prerequisite: BACS 485 with a minimum grade of "C." Required laboratory arranged. Seniors or above. An activity course covering database systems/applications. Topics include advanced relational and network database processing, data dictionaries, database integrity issues, distributed databases, emerging technologies and database administration.

BACS 487 Systems Analysis and Design (3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Required laboratory arranged. Seniors or above. An activity course that covers systems analysis and design; emphasizes techniques, tools, skills, procedures and end products. Covers investigation, analysis/design.

BACS 488 Senior CIS Project (3) Prerequisite: BACS 487 with a minimum grade of "C." Seniors or above. Required laboratory arranged. This is an activity course in which students perform an actual systems analysis and design. An information system will be developed by the student and time permitting, will be implemented. (S)

BACS 492 Internship in Computer Information Systems (1-3) Consent of faculty coordinator. Juniors or above. Obtain practical experience in one or more of the following CIS areas: programming, systems design, DBMS, quantitative research, data communications, DSS. S/U graded. Repeatable, maximum of three credits.

BACS 495 Special Topics in CIS (1-3) Prerequisite: BACS 286 or BACS 287 with a minimum grade of "C." Juniors or above. This seminar course explores advanced topics in computer information systems and/or quantitative methods. S/U or letter graded. Repeatable, under different subtitles.

BAFN - Finance

BAFN 231 Legal Environment of Business (3) Emphasizes public law, regulation of business and various relationships that exist within society, government and business such as: economic regulation, social regulation, laws impacting labor-management issues and environmental concern. (F,S)

BAFN 240 Introduction to Personal Financial Planning (3) Finance majors will not receive credit towards their major. Discuss concepts and principles of personal financial planning including personal financial assessment, goal setting, planning and management of personal assets, credit, insurance, investments, estates and taxes.

BAFN 332 Business Administration and the Law (3) Prerequisite: BAFN 231. Juniors or above. Provides an understanding of the law of business transactions as part of the decision-making process. Topics will include the law of contracts, sales, bailments and negotiable instruments. (F,S)

BAFN 340 Principles of Risk and Insurance (3) Juniors or above. Theory of risk and risk bearing; arrangements for dealing with risks; insurance industry, types of insurers, functions of insurers and government regulation of insurance; social insurance; and basic features of selected insurance contracts. (F,S)

BAFN 370 Business Finance (3) Prerequisites: BAAC 221, BACS 291, ECON 103 and ECON 105. Juniors or above. Examines the basic principles and concepts of financial management. Topics include valuation, risk, financial analysis and planning, working capital management, cost of capital, capital structure and capital budgeting. (F,S)

BAFN 371 Financial Markets and Institutions (3) Prerequisite: ECON 103. Juniors or above. Analyze characteristics and interrelations between money and capital markets, flow of funds and factors determining both supply and demand of funds. Stress financial institutions' role as intermediaries and effect on economic activity. (F,S)

BAFN 372 Introduction to Real Estate (3) Juniors or above. Discover important concepts and principles of real estate, especially procedures for evaluating and appraising real estate investments, legal marketing and financing aspects of real estate. (F,S)

BAFN 422 Directed Studies (1-3) Juniors or above. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BAFN 433 Seminar in Business Law (3) Prerequisite: BAFN 231. Junior and senior business majors only. This seminar examines business entities and choice of business entity, secured transactions, bankruptcy and other topics as well as current legal issues. The role and impact of law on business decisions is emphasized throughout the seminar. (S)

BAFN 441 Estate Planning and Life Insurance (3) Prerequisite: BAFN 340, BAAC 428. Juniors or above. Discuss property disposition and estates and trusts, administration of estates, federal estate unified tax, planning through trusts and wills, life insurance and estate planning.

BAFN 442 Topics in Financial Planning (3) Prerequisites: BAFN 340, BAFN 471. Juniors or above. Provide a comprehensive examination of financial planning concepts and techniques through both class discussion and case analysis.

BAFN 445 Risk Management (3) Prerequisite: BAFN 340 or consent of instructor. Juniors or above. Nonspeculative risks in business and selected management for dealing with them; avoidance, assumption, reduction and transfer of risk; risk management decisions; control of risk and reduction of losses; case studies in risk management.

BAFN 470 Financial Management (3) Prerequisite: BAFN 370. Juniors or above. Covers advanced concepts and techniques of financial management, especially emphasizing the overall environment and decision making by financial managers. Topics include modern portfolio theory and capital structure theory.

BAFN 471 Investments (3) Prerequisite: BAFN 370. Juniors or above. The study of financial assets, their valuation and reporting through a thorough understanding of financial publications which will enable the student to construct a portfolio of different investments with the knowledge of economic factors affecting risk, returns, and timing of investment decisions.

BAFN 473 Commercial Bank Management (3) Prerequisite: BAFN 371. Juniors or above. Investigate the management of commercial banks and other financial institutions. Evaluate decision strategies that may be used to enhance performance in a changing economic and regulatory environment. Review banking principles, current practices and problems. (S)

BAFN 474 Case Problems in Financial Management (3) Prerequisite: BAFN 470. Business majors only. Juniors or above. This seminar class involves the comprehensive study of applied financial management, finance, other business skills and financial decision making processes for the firm. Use case study problem solving method. (F,S)

BAFN 475 Multinational Financial Management (3) Prerequisite: BAFN 370. Juniors or above. Addresses the financial characteristics and environment of the multinational corporation. Special attention is focused on how international risk factors and foreign securities markets affect financial decisions. (F)

BAFN 478 Student-Alumni Foundation Fund (3) Consent of instructor. Juniors or above. Involves students managing a portfolio of funds provided by the UNC Foundation while studying and applying the principles of security analysis and portfolio management. S/U graded. Repeatable, maximum of six credits.

BAFN 479 Security Analysis (3) Prerequisite: BAFN 471. Juniors or above. Complete an in-depth research project of an industry and selected firms within the industry, considering near term expected economic climate. Emphasize portfolio theory and recent changes in financial statement presentation. (S)

BAFN 492 Internship in Finance (1-3) Consent of faculty coordinator. Juniors or above. Get practical experience and opportunities to utilize theory of academic finance courses. S/U graded. Repeatable, maximum of three credits.

BAFN 495 Special Topics in Finance (1-3) Consent of instructor. Juniors or above. This seminar course explores advanced topics in finance. S/U or letter graded. Repeatable, maximum of six credits.

BAMG - Management

BAMG 350 Management of Organizations (3) Juniors or above. An introduction to management of organizations covering organizational behavior, individual behavior and management topics such as motivation, leadership, organization design, organizational theory, diversity, international management and ethics. (F,S)

BAMG 353 Human Resources Management (3) Prerequisite: BAMG 350. Junior or above. A survey of human resource management topics such as recruitment, selection, training, development, performance appraisal, compensation, career development.

BAMG 354 Organizational Behavior (3) Prerequisite: BAMG 350. Majors/minors only. Juniors or above. A study of behavioral science theories and concepts applicable to individuals, teams, and organizations. Topics include motivation, leadership, group dynamics, perception, decision-making, power, culture, change and communication.

BAMG 357 Managing New Business Ventures (3) Prerequisites: BAAC 220, BAAC 221, BAMG 350, BAMK 360, BAFN 370 or take concurrently. Juniors or above. An activity course emphasizing the problems and opportunities of starting new businesses including new enterprise creation, planning, management, control and growth.

BAMG 407 Small Business Counseling (3) Consent of instructor. Juniors or above. A seminar course which applies theories learned in all business majors to actual small businesses.

BAMG 422 Directed Studies (1-3) Prerequisite: BAMG 350 and consent of instructor. Juniors or above. Individualized research under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable. Maximum concurrent enrollment is two times.

BAMG 452 Business, Government and Society (3) Prerequisite: BAMG 350. Juniors or above. A study of the role of business organizations in society and the relationships between business and economic policy, social responsibility and political influence in multiple environments.

BAMG 453 Advanced Topics in Human Resources Management (3) Prerequisites: BAMG 350, BAMG 353 and senior standing. Provides an expanded examination of human resources management topics such as performance appraisal, training, compensation and labor relations. Current topics are emphasized.

BAMG 455 Labor Relations (3) Prerequisite: BAMG 350. Juniors or above. Traces the labor movement, basic philosophies of labor unions, legislation, and decisions of courts and labor boards affecting management-employee relations. Covers current labor topics, contract negotiations and administration, grievances and disputes.

BAMG 456 Strategic Management and Business Policy (3) Prerequisites: BAAC 221, BACS 291, BAFN 370, BACS 395, BAMG 350, BAMK 360 and senior standing. Business majors only. Examines organizational strategic issues and problems related to internal and external environments. Case analysis framework and strategic management concepts emphasized. BACS 395 is the only prerequisite that may be taken concurrently with BAMG 456. (F,S)

BAMG 457 Managing Complex Organizations (3) Prerequisite: BAMG 350. Majors/minors only. Juniors or above. A seminar course which concentrates on the analysis and understanding of effective organizations through the study of organizational theory.

BAMG 458 Managing in a Global Environment (3) Juniors or above. A seminar that examines the field of international management. Examines the implications of managing organizations involved in global operations.

BAMG 459 Seminar in Organizational Development (3) Prerequisites: BAMG 350 and BAMG 354. Juniors or above. A seminar course designed to study the methods of intervention in organizations for the purpose of instituting change. Emphasizes applications of organizational behavior techniques, group change and/or organizational behavior.

BAMG 492 Internship in Management (1-3) Faculty coordinator's consent. Juniors or above. An internship working in a middle management position to obtain practical organizational experience. Internship proposal, progress report and final report required. S/U graded. Repeatable, maximum of three credits.

BAMG 495 Special Topics in Management (1-3) Prerequisite: BAMG 350 or consent of instructor. Juniors or above. A seminar in various management content areas as need and opportunity arise. Primarily for management majors, this course attempts to integrate management concepts within applied settings. S/U or letter graded. Repeatable, under different subtitles.

BAMK - Marketing

BAMK 260 Introduction to Marketing (3) This course provides an introduction to basic concepts of marketing and an introduction as to how these marketing concepts are applied by both business and non-business organizations. Non-business majors only.

BAMK 360 Marketing (3) Prerequisite: ECON 105. Juniors or above. This theory course provides an understanding of the basic concepts and terminologies in marketing, as well as an understanding of how these concepts are applied in both international and domestic business settings and their environments.

BAMK 361 Consumer Behavior (3) Prerequisite: BAMK 360. Majors/minors only. Juniors or above. This theory course examines the various theories of consumer behavior and the decision making process from a global perspective. The implications of cultural, ethical and legal variables will also be discussed.

BAMK 363 Promotional Strategy (3) Prerequisite: BAMK 360. Juniors or above. This is an activity course involving the study of advertising, personal selling, public relations and sales promotion. Case discussions concentrate on integrating promotion tools into an overall marketing communications strategy.

BAMK 364 Selling and Sales Management (3) Prerequisite: BAMK 360. Juniors or above. This is an activity course emphasizing both theoretical and practical skills in the personal selling process and the management of a sales force.

BAMK 365 Advertising (3) Prerequisite: BAMK 360. Juniors or above. This is an activity course of advertising principles including advertising terminology, communication process, advertising agencies, media, copy and layout elements.

BAMK 366 Retailing (3) Prerequisite: BAMK 360. Juniors or above. An introductory survey course of retail institutions; how they operate and their impact on the marketplace. This course covers both theory and practice.

BAMK 368 Marketing Analysis and Research (3) Prerequisites: BACS 291, BAMK 360. Majors/Minors only. Juniors or above. An activity course involving practical experience in planning a research investigation, designing questionnaires, sampling, interpreting results and preparing a research report. Emphasis on product, advertising, sales and motivational research.

BAMK 407 Small Business Counseling (3) Consent of instructor. Juniors or above. A seminar course which applies theories learned in all business majors to actual small businesses.

BAMK 422 Directed Studies (1-3) Juniors or above. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BAMK 461 Advertising Campaigns (3) Prerequisite: BAMK 365. Juniors or above. An activity course where students receive realistic experience in campaign planning. Assume the identity of an advertising agency responsible for the preparation of a complete marketing communications program. Fee required.

BAMK 462 Marketing Problems (3) Prerequisites: BAFN 370, BAMK 360. Majors/minors only. Seniors or above. This capstone marketing seminar course emphasizes application, analysis, planning and control of the various marketing mix variables, the target market, and the marketing environment.

BAMK 464 Global Marketing Strategies (3) Prerequisite: BAMK 360. Juniors or above. A seminar of institutions, functions, policies and practices in international markets. Global multinational aspects of business enterprises and their effects on marketing problems and management are analyzed.

BAMK 468 Business-to-Business Marketing (3) Prerequisite: BAMK 360. A course in theoretical and practical aspects of marketing goods and services to business. Emphasizes analysis and segmentation of business markets and development of marketing mixes to serve those markets.

BAMK 469 Distribution Logistics (3) Prerequisite: BAMK 360. An activity seminar course designed to explore the techniques utilized by marketing-oriented distribution managers within the worldwide logistics process. Computer simulation and/or case analysis may be used.

BAMK 470 Direct Marketing (3) Prerequisite: BAMK 360. An examination of the concepts, strategies and applications involved in direct marketing, including mail order and direct response advertising.

BAMK 492 Internship in Marketing (1-3) Consent of faculty coordinator. This course gives the student practical experience and opportunities to apply theory from academic marketing courses. S/U graded. Repeatable, a maximum of three credits.

BAMK 495 Special Topics in Marketing (3) Majors and minors only. This seminar course explores various advanced marketing topics. The course is offered as needed. S/U or letter graded. Repeatable, under different subtitles.

BCHM - Biochemistry

BCHM 381 Immunology (2) Prerequisites: BIO 110, CHEM 352 or CHEM 131. An introduction to the components and basic mechanisms of the immune system.

BIED - Biology Education

BIED 682 Problems in Teaching College Biology (3) Acquaints students with problems encountered in teaching biology and strategies for increasing teaching effectiveness. Topics covered include learning theory and application, ways to present difficult material, curriculum development, research and the laboratory as teaching tools, management and maintenance of biological materials.

BIO - Biology

BIO 100 Exploring Biology (3) No credit for biological science majors and minors. An exploration of biological principles of concern to the educated layperson. Topics include ecology, evolution, the cell, organs and systems, inheritance and disease.

BIO 110 Principles of Biology (4) (3 lecture, 3 laboratory) Investigate principles that drive biological actions within the biosphere and within cells; especially structural and functional bases of life in genetics, evolution and ecology. Fee required.

BIO 111 Survey of Organismal Biology (5) (3 lecture, 4 laboratory) Survey the five kingdoms of living organisms focusing on diversity, life cycles and systematics, principles of structure and function, ecology and evolutionary relationships. Fee required.

BIO 192 Careers in the Health Professions Seminar (0.5) For students interested in a career in the primary health field. Discuss program, GPA, cost, salary, future of health professions. S/U graded.

BIO 220 Genetics (3) (2 lecture, 3 laboratory) Prerequisite: BIO 110. Discover how the fundamental laws of heredity apply to normal and abnormal development and maintenance of all life using microorganism, plant, animal and human models as appropriate. Fee required.

BIO 265 Biological Science Concepts for Elementary Teachers (3) (2 lecture, 2 laboratory) An investigation of basic biological concepts in biological science through lecture, discussion and laboratory investigation. Ideal for students seeking elementary certification. Fee required.

BIO 351 Microbiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 110 or BIO 111 or ZOO 115; CHEM 131 or CHEM 208 or CHEM 331. Examine microorganisms and their activities in the biological world. Study structures and functions of bacteria. Also some discussion of fungi and viruses. Fee required.

BIO 371 Teaching Strategies for Biology Teachers (1) (2 laboratory) Full admission to PTEP required or consent of instructor. Demonstrations and strategies appropriate for lecture and laboratory instruction, including computer usage and controversial issues, will be presented. Fee required.

BIO 380 Aquatic Biology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111. This course examines aquatic communities, determines species present, nature of the physical and chemical aquatic environment, species and population distribution, productivity and eutrophication. Fee required.

BIO 408 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles. S/U graded.

BIO 415 Biology of Aging (2) Prerequisite: ZOO 115 or ZOO 245. Study biological changes that take place during the normal aging process, including several major organ systems.

BIO 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BIO 424 Behavioral Genetics (2) Prerequisites: BIO 220, PSY 120. Explore the genetic/environmental basis of normal and pathological behavior in animals and humans and study such contemporary issues as evolution, intelligence and genetic counseling.

BIO 425 Molecular Genetics (3) (2 lecture, 3 laboratory) Prerequisites: BIO 220, CHEM 481. Examination of macromolecules (DNA, RNA and proteins) and of biological organisms with particular emphasis on recombinant DNA techniques and aberrant biochemical pathways.

BIO 450 Cell Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111, CHEM 131 or CHEM 331, recommend CHEM 481. The study of vital life processes common to all cells, relating cell structure to function, basic cell chemistry, energy transformations within the cell and homeostatic regulations of the environment. Fee required.

BIO 458 Diagnostic Microbiology (4) (2 lecture, 4 laboratory) Prerequisite: BIO 351. Learn about microorganisms of medical significance: isolation, identification, immunology and disease etiology. Fee required.

BIO 460 Ecology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Plant and animal communities will be identified and measured. Ecosystem structure and energy flow will be determined. Topics including biochemical cycles, soils, population structure/distribution and succession will be examined. Field trip may be required. Fee required.

BIO 465 Evolution (3) Prerequisite: BIO 220. Study of the processes of evolution including the history of evolutionary thought, nature and sources of biological variation, population genetics, natural selection and a survey of the evolutionary history of life.

BIO 475 Biological Photography (2) (1 lecture, 3 laboratory) Learn the fundamentals of photography and more advanced techniques such as lighting, close-up, copying, slide duplication, computer graphics, photomicroscopy and wildlife photography for AV production and scientific publication. Fee required.

BIO 485 Topics in Field Biology (1-10) After preparatory work, study biology in the field on a state, national or international basis. Fee required.

BIO 491 Senior Seminar (1) Majors only. Juniors or above. Survey research, literature and career opportunities in selected biological areas. Complete professional development activities, such as writing a resume and preparing a research poster or presentation. S/U graded.

BIO 492 Internship in Biological Sciences (1-3) Consent of instructor required. On-the-job experience in professional areas under the supervision of an area specialist. S/U graded.

BIO 494 Practicum in College Biological Science Instruction (1-2) Prerequisites: BIO 110, BIO 111. Consent of instructor and departmental PTEP committee required. Gain experience teaching an introductory biological science laboratory.

BIO 495 Special Topics in Biology (2) Prerequisites: BIO 110, BIO 111. Advanced study for qualified undergraduates in an area of the biological sciences.

BIO 497 Special Laboratory Topics in Biology (1) (3 laboratory) Prerequisites: BIO 110, BIO 111. Advanced study in the laboratory for qualified undergraduates in an area of the biological sciences.

BIO 499 Undergraduate Research (1-6) Consent of instructor. Conduct original research in the biological sciences. Submit two copies of a final report. S/U graded.

BIO 501 Current Issues in Biology (1) Course varies in content, reviewing current issues of biology, botany or zoology. S/U graded.

BIO 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles. S/U or letter graded.

BIO 509 Advanced Placement Biology (1-3) Consent of instructor. Topics in biological sciences and pedagogy related to establishment and maintenance of a biology advanced placement program. S/U graded.

BIO 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

BIO 515 Biology of Aging (2) Prerequisites: ZOO 115 or ZOO 245. Study biological changes that take place during the normal aging process, including several major organ systems.

BIO 524 Behavioral Genetics (2) Prerequisites: BIO 220, PSY 120. Explore the genetic/environmental basis of normal and pathological behavior in animals and humans and study such contemporary issues as evolution, intelligence and genetic counseling.

BIO 525 Molecular Genetics (3) (2 lecture, 3 laboratory) Prerequisites: BIO 220 and CHEM 481. Examination of macromolecules (DNA, RNA and proteins) and of biological organisms with particular emphasis on recombinant DNA techniques and aberrant biochemical pathways.

BIO 545 Cytology (3) Study the structure and function of the various components and organelles of both prokaryotic and eukaryotic cells.

BIO 550 Cell Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 110, BIO 111, CHEM 131 or CHEM 331, recommend CHEM 481. The study of vital life processes common to all cells, relating cell structure to function, basic cell chemistry, energy transformations within the cell and homeostatic regulations of the cell environment. Fee required.

BIO 569 Conceptual Issues in Evolution (2) Prerequisite: BIO 465 or consent of instructor. Study of the guiding principles in modern evolutionary biology. Focus on concepts of fitness, selection, adaptation, form and function, concerted evolution and the nature of biological variation.

BIO 571 Teaching Strategies for Biology Teachers (1) (2 laboratory) Full admission to PTEP required or consent of instructor. Demonstrations and strategies appropriate for lecture and laboratory instruction, including computer usage and controversial issues, will be presented. Fee required.

BIO 585 Topics in Field Biology (1-10) After preparatory work, study biology in the field on a state, national or international basis. Fee required.

BIO 592 Internship in Biological Sciences (1-3) Consent of instructor required. On-the-job experience in professional areas under the supervision of an area specialist. S/U graded.

BIO 595 Special Topics in Biology (3) Study of any biological topic at an advanced level.

BIO 621 Advanced Genetics (3) Prerequisites: BIO 220 or equivalent and CHEM 131; recommend CHEM 481. Survey experimental advances in gene regulation of growth, maintenance and protection of all organisms including the human species with special emphasis on recent developments in the field.

BIO 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BIO 655 Advanced Microbiology (4) (2 lecture, 6 laboratory) Prerequisites: BIO 351, CHEM 481. Examine prokaryotic anatomy, physiology, genetics and taxonomy with laboratory studies of bacterial groups and use of advanced microbiological techniques.

BIO 662 Human Ecology (3) Study of human population growth and cultural and societal impacts on ecological systems. Global and large regional areas will be the center of focus.

BIO 690 Invited Topics in Biological Sciences (0.5) Invited speakers present topics of interest pertinent to biology. S/U graded.

BIO 691 Seminar in Biological Sciences (0.5) Students will research and present seminars on selected topics of current biological interest.

BIO 694 Foundations of Biological Research (2) Required of all first year graduate students in biological sciences. Delineate philosophy, methods of research and oral and written presentations of scientific findings.

BIO 697 Graduate Research (1-6) Prerequisite: BIO 694. Consent of instructor. Qualified graduate students spend a minimum of 38 clock hours per semester hour credit on a research problem. Before credit is given, a well-written report must be submitted to the instructor.

BIO 699 Thesis (1-6) Prerequisite: BIO 694. S/U graded.

BIO 792 Doctoral Supervised Teaching (1-6) Experience supervised college level biological sciences teaching. Develop course outlines and effective teaching techniques.

BIO 797 Doctoral Proposal Research (1-4) Four hours required of all doctoral students before admission to candidacy. S/U graded.

BIO 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. S/U graded.

BOT - Botany

BOT 270 Economic Botany (3) (2 lecture, 3 laboratory) Consider plants that directly affect human welfare: foods, drugs, fibers, naval stores, wood, dyes, insecticides and others according to their taxonomy, structure and ecological requirements. Fee required.

BOT 330 Plant Taxonomy (4) (2 lecture, 6 laboratory) Prerequisite: BIO 111. Recognize and identify plants at species and family levels, using the keys and manuals. Native plant collection required. Fee required.

BOT 333 Morphogenesis of Algae and Fungi (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Study structure, morphogenesis and phylogenetic relationships of algae, fungi. Fee required.

BOT 350 General Plant Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 111, CHEM 131. Study physiological factors influencing the chemical and structural composition of plant absorption and utilization of water and minerals; photosynthesis, translocation, respiration, nitrogen metabolism; and growth and development. Fee required.

BOT 440 Anatomy and Morphogenesis of Plants (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. A study of the evolution of the plant kingdom as revealed by the anatomy and morphogenesis of both non-vascular and vascular plant divisions. Fee required.

BOT 475 Plant Culture (3) (2 lecture, 3 laboratory) Prerequisite: BIO 111. Propagate, maintain and understand plants valuable to society for economical, educational, aesthetic reasons. Fee required.

BOT 530 Plant Taxonomy (4) (2 lecture, 6 laboratory) Prerequisite: BIO 111. Recognize and identify plants at species and family levels, using the keys and manuals. Native plant collection required. Fee required.

BOT 533 Morphogenesis of Algae and Fungi (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Study structure, morphogenesis and phylogenetic relationships of algae, fungi. Fee required.

BOT 540 Anatomy and Morphogenesis of Plants (4) (3 lecture 3 laboratory) Prerequisite: BIO 111. A study of the evolution of the plant kingdom as revealed by the anatomy and morphogenesis of both non-vascular and vascular plant divisions. Fee required.

BOT 550 General Plant Physiology (4) (3 lecture, 3 laboratory) Prerequisites: BIO 111, CHEM 131. Study physiological factors influencing the chemical and structural composition of plant absorption and utilization of water and minerals; photosynthesis, translocation, respiration, nitrogen metabolism and growth and development. Fee required.

BOT 560 Plant Ecology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 460. Study plant communities by examining the effects of environmental factors on plants, as well as community measurement and evaluation, modeling techniques, energy flow through ecosystems and community dynamics. Fee required.

BOT 575 Fungal Diseases of Plants (4) (3 lecture, 3 laboratory) Prerequisite: BOT 333. Recognize plant diseases, the physical and biochemical processes involved in the establishment of diseases and their prevention and control. Fee required.

BOT 595 Special Topics in Botany (2) Study of any botanical topic at an advanced level. Repeatable, maximum of three credits under different subtitles.

BOT 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

BOT 655 Advanced Plant Physiology (3) Prerequisite: BOT 350. Advanced study of the important physical and chemical principles controlling the supply, uptake, movement, loss and assimilation of inorganic substances by plants during growth and development.

BOT 699 Thesis (1-6) S/U graded. Repeatable, no limitations.

CED - Computer Education

CED 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CED 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CED 509 Advanced Placement Programs in Computer Science (1-3) Consent of instructor. Graduate students only. Topics in computer science and pedagogical information related to establishing and maintaining a computer science advanced placement program. S/U graded. Unlimited repeatability.

CED 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CG - Computing, General

CG 105 Personal Computer Applications (3) Operate and use microcomputers for personal applications such as word processing, spelling correction processing, mail-merging processing, electronic spreadsheet processing and database processing. Emphasize one specific microcomputer for "hands-on" experience. Fee required.

CG 110 BASIC Programming (3) Become familiar with fundamentals of designing and writing structured programs in BASIC language. Programs will involve nontechnical applications and are general enough to familiarize non-math majors with fundamentals. Fee required.

CG 115 FORTRAN 77 Programming (3) Prerequisite: MATH 124 with grade of "C" or better. Become familiar with designing and writing structured programs in the FORTRAN 77 language. Program will involve some technical applications in science and mathematics. Fee required.

CG 120 Pascal Programming (3) Prerequisite: MATH 124 with grade of "C" or better. Become familiar with designing and writing structured programs in the Pascal language. Programs will involve some technical applications in science and mathematics. Fee required.

CG 125 LOGO Programming (3) Study of the LOGO programming language. Topics include graphics, recursions and list processing.

CG 195 Special Topics in General Computing (1-3) Consent of instructor. Topics that reflect the specific interests of available professors and the specific needs of interested undergraduates. Repeatable, under different subtitles.

CH - Community Health

CH 205 Issues in Health (3) Analyze the variety of forces that currently affect the well-being of human population groups on a national level.

CH 209 Foundations of Health Promotion/Health Education (3) Overview of the field of health promotion/education including: evolution of the profession, health theories and models, functions/skills of health educators, current programs and settings for practice.

CH 236 Health and Lifestyles Among the Elderly (3) A survey of the psychosocial and biomedical dimensions that affect the health of the elderly. Current theories and scientific research on the aging process will also be discussed.

CH 238 Contemporary Issues in Drug Abuse (3) Examines current drug abuse problems and issues confronting modern society, including sociological and psychological factors influencing drug-taking behavior and social and health consequences that accompany drug abuse.

CH 293 Sophomore Practicum in Community Health (1-3) Consent of Instructor. Assignment to a community health agency. Assisting professional staff, the student will be given the opportunity to apply basic skills and observe the health education program of the facility. Repeatable, a maximum of three credits.

CH 299 Community Health Systems (3) Investigation and discussion of community organization, major community health problems and the role and function of various community agencies, programs and services related to problem resolution.

CH 320 Introductory Epidemiology and Biostatistics (3) Introductory course in epidemiology and biostatistics. Focuses on practical applications of epidemiological and biostatistical principles to diseases and health conditions in the community.

CH 330 Health Promotion/Health Education Strategies (3) Prerequisites: CH 209, CH 293. Course provides opportunity to learn and apply specific health promotion/education techniques such as risk assessment, individual educational plans, small group techniques, mass media, lectures and community organization campaigns.

CH 336 Human Sexuality (3) The general purpose of this course is to survey the psychosocial and biophysical dimensions of human sexuality.

CH 342 Modern Concepts of Health and Disease (3) This course is designed to discuss the etiology, treatment and control of the most significant diseases that affect the population of the United States today.

CH 350 Introduction to Environmental Health (3) Discussion of the relationships of environmental pollution to the ecosystem and health of humans. Analyze major areas of environmental pollution: water, air, solid wastes, pesticides, radioactive wastes and population.

CH 405 Health Communications and the Media (3) Focuses on the design, production, evaluation and acquisition of appropriate media and materials for health education/promotion programs.

CH 408 Workshop in Health Education (1-3) Investigate individual's problem areas, varying according to experts conducting workshops. Repeatable, under different subtitles.

CH 410 Introduction to Program Planning and Evaluation (3) Prerequisite: CH 330. Focuses on major components of health education/health service planning and evaluation, including: needs assessment, goals and objectives, selection of strategies, evaluation design and implementation.

CH 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CH 440 Foundations of Health Program Management (3) Provides students with skills in major areas of health program management including: program planning, decision making, budgeting, marketing, staff selection/motivation, evaluation.

CH 492 Internship in Health (6-12) Prerequisite: CH 410. Work with official or voluntary health agencies. Specific assignments and responsibilities required under guidance and supervision of Department of Community Health faculty. Submit written evaluation at conclusion of internship for purposes of evaluation and recording. Repeatable, maximum of 12 credits.

CH 503 Seminar: Substance Abuse (3) Analyze pharmacological, psychological, sociological and legal implications of drug and alcohol use, misuse and abuse, emphasizing current research and prevention/control measures.

CH 504 Issues in Elementary School Health Education (3) Focuses on contemporary health issues affecting grade school children. Identifies available resources and effective strategies for parents, schools, media and agencies to address issues and promote health enhancing behaviors.

CH 505 Health Communications and the Media (3) Focuses on the design, production, evaluation and acquisition of appropriate media and materials for health education/promotion programs.

CH 506 Contemporary Issues in Human Sexuality (3) Students will pursue in-depth study of current issues in human sexuality. Attention will be given to reviewing the psychological and social forces that shape people's sexual behaviors.

CH 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CH 509 Seminar in Health Behavior (3) Review theories of behavior and behavior change as they relate to current health issues. Health behavior change models will be examined and applied.

CH 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CH 530 Seminar in Health Promotion Strategies (3) Prerequisites: CH 509, CH 560 or consent of instructor. Examines the effectiveness of a wide range of strategies used in health promotion/disease prevention programs. Current literature/programs are presented and reviewed.

CH 540 Principles of Health Program Management (3) Prepares students to assume a supervisory role in the management of health and human services programs. Course covers planning, decision-making, organization, budgeting, marketing, human resource management, leadership.

CH 550 Environmental Health (3) Investigate and discuss the relationships of environmental health problems to human health and welfare. Include sources of these problems, their recognition and control and current research studies.

CH 560 Scientific Foundations of Health Promotion/Disease Prevention (3) Examine epidemiological, physiological and intervention studies from the USA and other countries to develop a scientific basis for health promotion and disease prevention.

CH 610 Health Program Planning and Evaluation (4) Prerequisite: CH 530 or consent of instructor. Theories and practices of program planning and evaluation including needs assessment, planning approaches, selection of strategies, data collection and analysis, evaluation design, program implementation and utilization of evaluation data.

CH 620 Epidemiology (3) Prerequisite: SRM 602 or equivalent. Epidemiological principles analyzed with an emphasis on selected topical issues, infectious and chronic/degenerative diseases, research design and analysis. Practical applications of statistical and epidemiological methods.

CH 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CH 625 Public Health Administration and Policy (3) Analyze the organization and administration of public health agencies at national, state and local levels. Major public health problems, including administrative and policy decisions regarding their resolution, will be included.

CH 692 Graduate Internship (6) Prerequisites: CH 610 and consent of instructor. Put into practice knowledge and skills learned in the classroom. Assume responsibilities in administration, supervision and evaluation and conduct various activities. One full semester of full-time placement is required in a health care setting.

CH 699 Thesis (1-6) Optional for Master of Arts candidates in Health Education. Repeatable, no limitations.

CHED - Chemistry Education

CHED 495 Seminar in Teaching Chemistry (2) Full admission to PTEP required, certification at the undergraduate level or consent of instructor. Students are prepared to set up, organize and run a high school chemistry laboratory and classroom. S/U graded.

CHED 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CHED 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CHED 682 Problems in Teaching Chemistry (3) Problems encountered in teaching chemistry and approaches to their resolutions will be considered. The formal nature of concepts, management of laboratories, safety, demonstrations are illustrative of areas of discussion.

CHEM 693 Chemical Education Research (1-10) Develop, complete, and defend master's level research project in chemical education. For PhD students only. S/U graded. Repeatable, maximum 10 credits.

CHEM 755 Supervised Practicum in College Teaching (1-6) Observation of and supervised practice in college teaching for doctoral candidates who plan to teach on the college or university level, with observation used as a basis for analysis of learning experiences. Repeatable, maximum six credits.

CHEM 793 Doctoral Research Practicum — Chemical Education (1-4) Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum 16 credits.

CHEM 797 Doctoral Research Proposal — Chemical Education (1-4) Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum four credits.

CHEM 799 Doctoral Dissertation — Chemical Education (1-12) Required of all doctoral candidates. See PhD in Chemical Education — Minimum requirements for the major in the Graduate School section of this Bulletin. S/U graded. Repeatable, maximum 12 credits.

CHEM - Chemistry

CHEM 101 Chemistry for Citizens (3) No previous chemistry required. Physical and chemical principles, illustrated by demonstrations and contemporary readings, understand current topics in chemistry; such as, polymers, farm chemistry, food additives, chemotherapy and drugs.

CHEM 102 Chemistry for Citizens Laboratory (1) (2 laboratory) Prerequisite: CHEM 101 or take concurrently. Investigation of the chemical world through hands-on activities in the laboratory. For non-science majors. Credit given only upon successful completion of CHEM 101. Fee required.

CHEM 103 Introductory Chemistry (3) No credit for chemistry major or minor. Basic chemistry concepts to prepare those with no chemistry background for CHEM 108 or CHEM 111.

CHEM 108 Fundamentals of Chemistry I (5) (4 lecture, 3 laboratory) High school chemistry is strongly recommended. Fundamentals of general chemistry and an introduction to organic chemistry; including, aliphatic and aromatic hydrocarbons with emphasis to the allied health professions (nursing, food and nutrition, health, kinesiology, etc.). Fee required.

CHEM 109 Fundamentals of Chemistry II (5) (4 lecture, 3 laboratory) Prerequisite: CHEM 108. Chemistry of biologically important organic compounds (alcohols, ethers, aldehydes, ketones, acids and their derivatives and amines) and biochemistry of the human organism, including the chemistry of cellular and body constituents and processes, foods and nutrition and metabolic diseases. Fee required.

CHEM 111 Principles of Chemistry I (5) (4 lecture, 3 laboratory) Atomic theory, mole concept, stoichiometry, states of matter, formulas, nomenclature, periodicity, bonding and solutions. Fee required.

CHEM 112 Principles of Chemistry II (5) (4 lecture, 3 laboratory) Prerequisite: CHEM 111 or CHEM 114. A continuation of CHEM 111. Thermochemistry, chemical kinetics, equilibrium, qualitative analysis, electrochemistry and descriptive inorganic chemistry. Fee required.

CHEM 114 General Chemistry I (4) (3 lecture, 3 laboratory) One year of high school chemistry and two years of high school algebra or equivalent required. Enrichment course for the well-prepared student. Atomic theory, stoichiometry, bonding, states of matter and solutions. Fee required.

CHEM 115 General Chemistry II (4) (3 lecture, 3 laboratory) Prerequisite: CHEM 111 or CHEM 114. Continuation of CHEM 114. Enrichment course for the well-prepared student. Topics include electrochemistry, acid-base chemistry, descriptive inorganic chemistry. Fee required.

CHEM 131 Introductory Organic Chemistry (4) (3 lecture, 3 laboratory) Prerequisite: CHEM 111. Will not substitute for CHEM 331. A brief introduction to modern organic chemistry. Structure, nomenclature, reactions and uses of organic compounds. Fee required.

CHEM 320 Theory and Use of Analytical Instruments (1) (3 laboratory) Prerequisite: CHEM 131 or 331. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph. Fee required.

CHEM 321 Chemical Analysis (4) (2.5 lecture, 4.5 laboratory) Prerequisite: CHEM 112 or CHEM 115. Chemical methods of analysis including gravimetry, acid-base, redox methods, statistics in analytical chemistry and an introduction to instrument operations. Fee required.

CHEM 331 Organic Chemistry I (5) (4 lecture, 3 laboratory) Prerequisite: CHEM 112 or CHEM 115. Credit not allowed for both CHEM 131 and CHEM 331. Nomenclature, reactions and synthesis of organic compounds. Fee required.

CHEM 332 Organic Chemistry II (5) (4 lecture, 3 laboratory) Prerequisite: CHEM 331. Continuation of CHEM 331. Advanced concepts in synthesis, theories of reactions, biological molecules and spectroscopy. Fee required.

CHEM 360 Environmental Chemistry (2) (1.5 lecture, .5 laboratory) Prerequisite: CHEM 131 or CHEM 331. The effect of chemicals in the environment.

CHEM 421 Instrumental Analysis (4) (3 lecture, 3 laboratory) Prerequisites: CHEM 321 and CHEM 450 or CHEM 451. Theory, practice and application of modern analytical instrumentation. Fee required.

CHEM 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CHEM 441 Inorganic Chemistry I (2) Prerequisite: CHEM 321 or CHEM 331. First of two courses exploring modern inorganic chemistry. Each utilizes the journal literature and integrates applications of appropriate physical methods with theory and practice. This course emphasizes structure and bonding in inorganic substances.

CHEM 442 Inorganic Chemistry II (2) Prerequisite: CHEM 441. A continuation of CHEM 441. Topics include descriptive main-group, coordination and organometallic chemistry with emphasis on industrial applications and interrelationships among reactions, energetics and dynamics.

CHEM 443 Inorganic Chemistry Laboratory (1) (3 laboratory) Prerequisite: CHEM 441 or take concurrently. Experimentation including structures, bonding, syntheses and properties of inorganic substances. Fee required.

CHEM 450 Survey of Physical Chemistry (4) (3 lecture, 3 laboratory) Prerequisites: CHEM 332, MATH 131, PHYS 221. Corequisite: CHEM 321. One semester survey of physical chemistry (thermodynamics, chemical kinetics and quantum mechanics). Not applicable to the "professional" and "biochemistry" emphasis areas in chemistry. Fee required.

CHEM 451 Physical Chemistry I (4) Prerequisites: CHEM 332, MATH 233, PHYS 241 or consent of instructor. Corequisites: CHEM 321 and CHEM 453. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

CHEM 452 Physical Chemistry II (4) Prerequisite: CHEM 451. Corequisite: CHEM 454. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

CHEM 453 Physical Chemistry I Laboratory (1) (3 laboratory) Corequisite: CHEM 451. Hands-on collection and treatment of experimental data by manual and computer methods. Fee required.

CHEM 454 Physical Chemistry II Laboratory (1) (3 laboratory) Prerequisite: CHEM 453. Corequisite: CHEM 452. Continuation of CHEM 453. Fee required.

CHEM 481 General Biochemistry I (3) Prerequisite: CHEM 331. Chemistry of biologically important compounds (proteins, nucleic acids, carbohydrates and lipids), emphasizing structure and function, methods of isolation, identification and characterization, kinetics and mechanisms of enzyme catalysis.

CHEM 482 General Biochemistry II (3) Prerequisites: CHEM 332 and CHEM 481 or equivalent. A continuation of CHEM 481. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

CHEM 483 Experimental Biochemistry I (1) (3 laboratory) Prerequisites: CHEM 331, CHEM 481 or take concurrently, CHEM 321 or take concurrently. Techniques involved in the isolation and characterization of amino acids, peptides and proteins. Isolation and kinetics of enzymes. Fee required.

CHEM 484 Experimental Biochemistry II (1) (3 laboratory) Prerequisite: CHEM 482 or take concurrently, CHEM 483. Continuation of CHEM 483. Techniques involved in the isolation and characterization of lipids and metabolism. Fee required.

CHEM 491 Glass Blowing (1) (3 laboratory) Demonstration and practice in techniques of glass blowing and repair of laboratory glass equipment.

CHEM 493 Special Topics in Chemistry (2) Advanced presentation of a topic in chemistry not covered in other courses. Topic determined when offered; e.g., geochemistry, chemical evolution, industrial chemistry. Repeatable, maximum four credits under different subtitles.

CHEM 499 Seminar and Research in Chemistry (1-3) Introduction to chemical research and current chemical literature; initiate and pursue investigation of a specific topic in chemistry or chemical education. At least 38 clock hours per credit hour will be spent on investigation. Oral and written reports are required. Unlimited repeatability.

CHEM 520 Theory and Use of Analytical Instruments (1) (3 laboratory) Prerequisite: CHEM 131 or CHEM 331. Techniques of sample preparation and data collection for IR, NMR, UV-visible and AA spectrophotometers and gas chromatograph. Fee required.

CHEM 522 Advanced Analytical Chemistry (3) (2 lecture, 3 laboratory) Prerequisite: CHEM 321. Advanced topics in analytical chemistry, including sampling, statistics, multiple equilibria and current literature.

CHEM 523 Chemical Spectroscopy (3) Prerequisites: CHEM 321 and CHEM 331. Theory and application of IR, NMR, UV-visible and mass spectroscopy.

CHEM 533 Organic Synthesis and Stereochemistry (3) Prerequisite: CHEM 332. An advanced treatment of synthesis and stereochemistry in organic chemistry.

CHEM 534 Theory and Mechanisms of Organic Reactions (3) Prerequisites: CHEM 332, CHEM 451. An advanced treatment of organic reaction mechanisms and molecular orbital chemistry.

CHEM 543 Organometallic Chemistry (3) Prerequisite: CHEM 441. An introduction to organometallic systems will be presented. Included will be a comprehensive study of the preparation, properties and practical utility of both main-group and transition metal organometallic compounds.

CHEM 551 Physical Chemistry I (4) Prerequisites: CHEM 332, MATH 233, PHYS 241. Corequisites, CHEM 321. The properties of matter, thermodynamics, thermochemistry and kinetic molecular theory.

CHEM 552 Physical Chemistry II (4) Prerequisite: CHEM 551. Chemical kinetics, quantum theory of atoms and molecules and statistical thermodynamics.

CHEM 556 Physical Chemistry of Atomic and Microscopic Systems (3) Prerequisites: CHEM 451 and CHEM 452 or equivalent. This course will examine the details of atomic and molecular structure, energetics, and dynamics.

CHEM 557 Physical Chemistry of Macroscopic Systems (3) Prerequisites: CHEM 451 and CHEM 452 or the equivalent. An examination of the thermodynamics and kinetics of bulk systems, including the energetics, equilibrium, and kinetics of such systems.

CHEM 560 Environmental Chemistry (2) (1.5 lecture, .5 laboratory) Prerequisite: CHEM 131 or CHEM 331. The effect of chemicals on the environment.

CHEM 581 General Biochemistry I (4) Prerequisite: CHEM 331 or equivalent. Chemistry of biologically important compounds (proteins, nucleic acids, carbohydrates and lipids), emphasizing structure and function, methods of isolation, identification and characterization, kinetics and mechanisms of enzyme catalysis.

CHEM 582 General Biochemistry II (4) Prerequisites: CHEM 332, CHEM 581 or equivalent. A continuation of CHEM 581. Bioenergetics, electron transport systems, metabolism of carbohydrates, lipids, nucleotides and amino acids.

CHEM 586 Biochemical Techniques (3) (1 lecture, 6 laboratory) Prerequisites: CHEM 321, CHEM 481. Theory and application of techniques for the purification and characterization of biological molecules. Various techniques utilizing centrifugation, spectroscopy, chromatography, electrophoresis and radioisotopes are examined.

CHEM 587 Toxicology (3) Prerequisites: CHEM 481 or equivalent or CHEM 208 with consent of instructor. A descriptive examination of the toxic effects of environmental substances on living systems.

CHEM 590 Advanced Topics in Chemistry (3) Discussion of a topic in chemistry at the graduate level; e.g., polymers, drug metabolism and molecular reaction dynamics. Repeatable, maximum 12 credits under different subtitles.

CHEM 600 Seminar in Chemistry (1) Oral report and discussion on some topic of interest from current literature. Repeatable, maximum of three times.

CHEM 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CHEM 693 Chemical Research (1-10) Develop, complete, and defend master's level research project in chemistry. For PhD students only. S/U graded. Repeatable, maximum 10 credits.

CHEM 695 Thesis Proposal (1) The student will develop a research proposal based on current literature.

CHEM 699 Thesis (1-10) Required of Master of Arts candidates in the Arts and Sciences chemistry program. Repeatable, no limitations.

CHEM 793 Research Practicum (1-6) Consent of advisor. Provides experience in the development and implementation of research techniques, the development of experimental design and the analysis of research data. S/U graded. Repeatable, maximum 16 credits.

CHEM 797 Doctoral Research Proposal — Chemistry (1-4) Required of all doctoral students. Students may register for this course (1-4 hours) in any semester, but must earn 4 hours of credit in partial fulfillment of requirements before admission to candidacy. S/U graded. Repeatable, maximum four credits.

CHEM 799 Doctoral Dissertation — Chemistry (1-12) Required of all doctoral candidates. See PhD in Chemical Education — Minimum requirements for the major in the Graduate School section of this Bulletin. Repeatable, maximum 12 credits.

CHIN - Chinese

Note: All Chinese courses are not offered on a regular basis. Consult the Department of Foreign Languages for current offerings.

CHIN 101 Beginning Chinese (5) For students with no previous Chinese. Conversational Chinese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

CHIN 102 Elementary Chinese II (5) Continuation of CHIN 101. Conversational Chinese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

CHIN 105 Conversational Chinese I (3) For students with no previous Chinese. Develop a basic conversational ability. Emphasis on language use in business or tourism. Discussion of important aspects of Chinese culture and thought.

CHIN 106 Conversational Chinese II (3) Prerequisite: CHIN 105. Continuation of Chinese 105. Basic conversational Chinese with emphasis on language use in business or tourism. Discussion of important aspects of Chinese culture and thought.

CHIN 201 Intermediate Chinese I (3) Prerequisite: CHIN 102 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest. Conducted in Chinese.

CHIN 202 Intermediate Chinese II (3) Prerequisite: CHIN 201 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest. Conducted in Chinese.

CMDS - Communication Disorders

CMDS 160 Introduction to Human Communication and Its Disorders (3) Survey identifying characteristics, causes, diagnosis and treatment of speech, language, and hearing disorders. Includes disorders in hearing, stuttering, voice, articulation, child language, adult aphasia, head injury and dementia.

CMDS 260 Introduction to Phonetics (2) Characteristics of American English speech sounds and the International Phonetic Alphabet symbols used to represent them. Normal phonological development.

CMDS 265 Fundamentals of Physiological and Biological Acoustics (2) The physics of sound as it relates to speech and hearing. Should be taken after general education mathematics requirement is completed.

CMDS 266 Normal Speech and Language Development (3) Normal speech and language development and their relationship to other aspects of child development. Should be taken after general education English composition requirement is completed.

CMDS 267 Anatomy and Physiology of the Speech and Hearing Mechanism (3) Prerequisite: ZOO 115. Sophomores or above. Structure and function of the speech and auditory/vestibular mechanisms.

CMDS 301 Computers for Health and Human Services (2) Introduction to the workings of the computer; managerial, diagnostic and clinical applications of computers in health-related and human services professions.

CMDS 360 Articulation and Voice Disorders (3) Prerequisite: CMDS 267. Current information regarding identification, causation, diagnosis and treatment of disorders of articulation and voice disorders.

CMDS 365 Language Disorders in Children I (3) Prerequisite: CMDS 266. Analysis of aspects of language as they relate to treatment of language disorders in children.

CMDS 366 Language Sampling Processes (1) Prerequisite: CMDS 266. Consent of instructor. Methods of eliciting language samples from children and manual and computerized language sampling analyses.

CMDS 370 Basic Audiology (3) Clinical observation required. Prerequisites: CMDS 265, CMDS 267 or take concurrently. Pure-tone testing, methods of speech audiometry, interpretation of audiometric data in terms of physical, social and educational effects. An introduction to principles of aural rehabilitation. Fee required.

CMDS 386 Basic Clinical Strategies in Speech-Language Pathology/Audiology (2) Prerequisite: CMDS 360 or CMDS 365. Clinical observation required. Treatment models for communicatively-disordered clients; development and implementation of individual treatment programs; report writing; the client-clinician relationship; assessment of treatment outcomes.

CMDS 390 Observation in Communication Disorders (1-2) This course will provide supervised observations of diagnostic and therapeutic activities in speech-language pathology, aural rehabilitation and/or audiology practice. Repeatable, maximum of 2 credits.

CMDS 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CMDS 431 Organically-Based Communication Disorders (3) Prerequisites: CMDS 160 and CMDS 267. Seniors or above. Current information regarding identification, causation, diagnosis and treatment of organically-based communication disorders, including cleft palate, cerebral palsy and aphasia.

CMDS 467 Diagnostic Methods and Observation (3) Clinical observation required. Prerequisites: CMDS 360, CMDS 365. Philosophy and implementation of diagnosis and appraisal of communication disorders. Emphasis upon the administration, scoring and interpretation of data obtained from observation and from tests/inventories.

CMDS 470 Communication Disorders of the Aging (2) Disorders of communication among older people: recognition of disorders, assessment and treatment, psychosocial and communicative impact. Procedures for dealing with these persons in health care facilities and the community.

CMDS 474 Clinical Practicum in Audiology (1) Prerequisite: CMDS 370 and 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audiometric testing; audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded. Fee required.

CMDS 478 Aural Rehabilitation and Amplification (3) Prerequisite: CMDS 370. A study of basic principles of aural (re) habilitation and the use of amplification systems for hearing impaired individuals including personal hearing aids and other specialized assistive listening/alerting devices.

CMDS 483 Entry/Primary Speech-Language Pathology Practicum (2) Prerequisites: CMDS 360, CMDS 365, CMDS 386 and 3.0 GPA in major courses or consent of clinical coordinator. Learn general principles of the clinical process. Provide supervised individual therapy to clients with communication disorders. S/U graded. Fee required.

CMDS 487 Advanced Audiology (3) Prerequisite: CMDS 370. Theory and practice of advanced techniques of audiometric assessment.

CMDS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

CMDS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CMDS 515 Referenced and Research Writing (1) Content includes library data bases, development of problems and research topics and use of APA style.

CMDS 555 Neuroanatomy and Neurophysiology of Communication (3) Neuroanatomy-physiology related to speech, language and hearing; neuropathologies of the central nervous system and results of neurological insult.

CMDS 561 Voice Disorders and Cleft Palate (3) Advanced study in diagnosis and treatment of voice disorders, including those associated with cleft lip/palate.

CMDS 565 Neurogenic Communication Disorders (4) Prerequisite: CMDS 555. Causation, diagnosis and treatment of speech and language disorders resulting from neurological dysfunction.

CMDS 567 Diagnostic Methods and Observation (3) Clinical observation required. Prerequisites: CMDS 360, CMDS 365. Philosophy and implementation of diagnosis and appraisal of communication disorders. Emphasis upon the administration, scoring and interpretation of data obtained from observation and from tests/inventories.

CMDS 569 Advanced Diagnostic Procedures (1-2) Must be taken for a minimum of four credits. Corequisite: CMDS 583 or CMDS 585. Perform speech-language screenings and diagnostic evaluations. Repeatable, maximum of six credits. Fee required.

CMDS 570 Rehabilitative Audiology (3) Prerequisite: CMDS 370. Theory and procedures for habilitation/ rehabilitation of children and adults with hearing handicap.

CMDS 571 Speech and Hearing Science (3) Prerequisites: CMDS 265 and CMDS 267. Factors related to the study of speech production and audition. Introduction to laboratory techniques for measurement of complex acoustic signals will be emphasized. Fee required.

CMDS 572 Noise (2) The study of noise as it pertains to the auditory system. Physical aspects of noise, instrumentation, measurement and reduction principles, hearing conversation management.

CMDS 573 Auditory Physiology and Pathology (3) Undergraduate anatomy and physiology required. Advanced physiology of the human auditory system, emphasizing electrical potentials; processes of pathophysiology.

CMDS 574 Clinical Practicum in Audiology (1) Prerequisites: CMDS 370, 3.0 GPA in major courses or consent of clinical coordinator. Perform basic audiometric testing; audiometric screening, routine hearing evaluation and impedance audiometry. S/U graded. Fee required.

CMDS 580 Practicum in Rehabilitative Audiology (1-2) Prerequisite: CMDS 483. Habilitation/rehabilitation of acoustically-handicapped persons. Repeatable, maximum of six credits. Fee required.

CMDS 582 Pediatric/Educational Audiology (3) Prerequisite: CMDS 370. Philosophy and implementation of diagnosis of hearing loss in children. Diagnostic, therapeutic and educational implications of auditory processing disorders. Services for hearing-impaired children in the schools.

CMDS 583 Entry/Primary Speech-Language Pathology Practicum (1-2) Prerequisites: CMDS 360, CMDS 365 and 3.0 GPA in major courses or consent of clinical coordinator. Learn general principles of the clinical process. Provide supervised individual therapy to clients with communication disorders. S/U graded. Fee required.

CMDS 584 Screening Procedures in Speech-Language Pathology (1) Presents theory and procedures related to screening speech and language abilities in children and adults. Provides practice in implementing procedures in a variety of settings. S/U graded. Fee required.

CMDS 585 Advanced Graduate Practicum in Speech-Language Pathology (1-2) Prerequisite: CMDS 483/583. Supervised individual and group therapy experiences with communicatively-disordered clients. Repeatable, maximum of eight credits. Fee required

CMDS 587 Advanced Audiology (3) Prerequisite: CMDS 370. Theory and practice of advanced techniques of audiometric assessment.

CMDS 592 Internship in Public Schools (2-15) Prerequisites: Minimum of 100 clock hours of previous supervised clinical experience and/or consent of advisor. Supervised full-time experience working with school children. S/U graded. Repeatable, maximum of 15 credits.

CMDS 594 Practicum and Advanced Topics in Audiology (1-2) Prerequisite: CMDS 474 or CMDS 574. Perform the full range of clinical audiological services, including special testing, hearing aid evaluations and dispensing of hearing aids. Repeatable, maximum of six credits. Fee required.

CMDS 616 Speech and Language Services in the Public Schools (1) Content includes relevant public laws, child abuse, cultural issues and administrative issues related to services provided in the public schools.

CMDS 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CMDS 660 Clinical Phonology (3) Advanced study of articulation disorders in children and adults.

CMDS 662 Stuttering (3) Current theories, therapies and research on stuttering and related disorders of fluency.

CMDS 663 Language Disorders in Children II (3) Advanced study of causation, diagnosis and therapy for children with language disorders. Pragmatic aspects of language; implications for remediation of language disorders.

CMDS 668 Selected Topics in Communication Disorders (1-4) Current issues in communication disorders. Sections chosen by instructor to meet needs of students in degree programs. Other sections arranged to accommodate professionals wishing to pursue special topics. Unlimited repeatability.

CMDS 669 Language-Learning and Cognition (3) Basic neurophysiology related to language-learning and cognition.

CMDS 671 Psychoacoustics (2) Prerequisite: CMDS 573. Concepts of loudness, adaptation, auditory fatigue, masking and the critical band, pitch perception, localization, temporal order and perceptual organization.

CMDS 673 Practicum in School Audiology (1-6) Prerequisite: CMDS 582. Perform audiological services in schools (grades K-12) under supervision of a certified Audiologist. S/U graded. Repeatable, maximum of six credits.

CMDS 675 Differential Diagnosis of Auditory Problems (5) Prerequisite: CMDS 573. Theory and process of differential diagnosis of hearing and auditory processing disorders; electrophysiological techniques for measuring auditory and vestibular function, including electronystagmography, brain stem evoked response audiometry and electrocochleography.

CMDS 678 Hearing Aids and Uses of Amplification (3) Advanced study of the theory and use of hearing aids, other amplification devices and assistive listening devices.

CMDS 681 Experimental Phonetics (3) Undergraduate anatomy and physiology required. Advanced physiology of the speech production system, emphasizing normal aspects and select pathophysiological conditions.

CMDS 683 Advanced Topics in Language Disorders (3) Prerequisite: CMDS 365. Advanced topics and trends related to diagnosis and treatment in child language disorders.

CMDS 689 Advanced Research Practicum in Health and Human Sciences (1) Prerequisite: HRS 610 or SRM 600. Structured to give students broadened experiences in research and thesis design in the disciplines in Health and Human Sciences. S/U graded.

CMDS 691 Real-Time Laboratory Applications in the Behavioral Sciences (2) Prerequisites: Computer literacy course and/or experience in operating micro-or minicomputers or consent of instructor. Use of mini- and microcomputers for real-time applications in acoustics, perception, aerodynamics and physiology.

CMDS 692 Internship in Medical Settings (2-15) Prerequisites: Minimum of 100 clock hours of previous supervised clinical experience and/or consent of advisor. Supervised full-time clinical experience in diagnosis/treatment of persons with speech, language and/or hearing disorders in medical settings. S/U graded. Repeatable, maximum of 15 credits.

CMDS 699 Thesis: Communication Disorders (1-6) Individual original research under the direction of faculty, aimed at acquisition of research skills, appreciation of the scientific inquiry process, knowledge of scientific writing style and dissemination. S/U graded. Repeatable, no limitations.

CS - Computer Science

CS 101 Introduction to Computer Science (3) A beginning-level course which provides a broad introduction to the fundamental concepts and techniques of computer science. Topics covered will include computer architecture, structured programming, data base and information retrieval, and applications of computers in a variety of areas. Fee Required.

CS 102 Structured Programming (3) Prerequisite: CS 101. Study the structured programming development methods; the data types, operators, expressions, control flow, and input and output of a specific structured programming language; and some elementary data structures and algorithms. Fee Required.

CS 195 Special Topics in Computer Science (1-3) Consent of Instructor. Topics that reflect the specific interests of available professors and the specific needs of interested undergraduates. Repeatable under different subtitles. Fee Required.

CS 200 Object-Oriented Analysis, Design, and Programming (3) Prerequisite: CS 102. Study the software development life cycle; elements of the object model; object-oriented data types and functions; object-oriented enhancements to structured programming; and additional data structures and algorithms. Fee Required.

CS 222 Computer Architecture/Organization (3) Prerequisite: CS 101. A study of the organization and structure of the major hardware components of computers and the basics of assembly language programming. Fee Required.

CS 301 Algorithms and Data Structures (3) Prerequisite: CS 200. Internal representation of lists, trees, graphs, internal/external sorting and searching, hashing. Concepts related to the interaction among algorithm, data structures, and storage structures for the generating, developing, and processing of data. Fee Required.

CS 302 Programming Languages (3) Prerequisite: CS 301. Basic components of programming languages. Specification of syntax and semantics. Description of programming languages features. Examine a wide variety of languages with an emphasis on their structure, design, and use. Fee Required.

CS 350 Software Engineering I (3) Prerequisite: CS 301. Study concepts of engineering software systems. Design and implement a software system project using the team approach. Fee Required.

CS 395 Special Topics in Computer Science (1-3) Consent of instructor. Topics in computer science that reflect the specific interests of available instructors and the specific needs of the students. Repeatable, under different subtitles.

CS 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour). A directed studies description should be submitted to the student's directed studies teacher. The project must be signed off by all Computer Science faculty. Repeatable, may be taken two times.

CS 440 Operating Systems (3) Prerequisites: CS 222 and CS 301. Study operating systems history, concepts/structure and design; process, processor, memory, file system and input/output management; and representative operating systems. Fee Required.

CS 442 Networking (3) Prerequisite: CS 440. Study data communications; network structure, design and architectures; network services and standardization; and respective networks all in the framework of the OSI model. Fee Required.

CS 450 Software Engineering II (3) Prerequisite: CS 350. Study software engineering implementation, testing and operational phases; testing strategies and techniques; configuration management; software quality assurance; and intra/inter-language communication while applying them to the continuation of a team project.

CS 470 Artificial Intelligence (3) Prerequisite: CS 301. Study knowledge representation, automated reasoning, natural language processing, vision processing, expert systems and machine learning; and AI programming.

CS 480 Graphics (3) Prerequisite: CS 301. Study graphics theory and applications including the description and transformation of world, viewpoint, eye and screen coordinates, two and three dimensional graphics and hidden line algorithms. Fee Required.

CS 490 Seminar (1) Junior or above in Computer Science. Each student will research a current topic of interest and present it as a seminar. A term paper on the topic will also be required. Repeatable, maximum of two credits.

CS 492 Internship (1-8) Senior or consent of instructor. Obtain practical experience and have opportunities to utilize computer science theory. A job description should be submitted to the student's internship advisor. The project must be signed off by all Computer Science faculty. S/U graded. Repeatable, maximum of eight credits.

CS 497 Senior Project (1-8) Senior or above. A significant application in computer science will be researched, developed and implemented under the guidance of a computer science professor. A software specification should be submitted to the student's project advisor. The project must be signed off by all Computer Science faculty. Repeatable, maximum of eight credits.

CSPA - College Student Personnel Administration

CSPA 173 Career Theories and Employment Trends (1) Designed to explore career theories and their application to the world of work. Students will investigate current occupational information and trends of the future. Fee required.

CSPA 210 Human Values (2) Identify, clarify and critique personal values. Expand awareness of cross-cultural values, lifestyle choices, sources of values and the process of making value commitments.

CSPA 220 Death and Dying (2) Examines current American views of death and dying from perspectives of psychology, religion, medicine and sociology. Explores attitudes toward death, grief, mourning and reactions to imminent death.

CSPA 260 Paraprofessionals in Residence Life (1-2) Consent of instructor. Majors only. Through a comprehensive training experience become acquainted with the responsibilities of the resident assistant. Emphasizes student development and its application to the residence hall environment. Repeatable, maximum of 2 credits.

CSPA 263 Peer Advising I (1) Study several current theories of student development and practice the interpersonal communication skills needed by effective peer helpers; discuss and critique strategies for assisting students making the transition into postsecondary education.

CSPA 308 College Student Personnel Administration Workshop (1-5) Special short course for undergraduates on topics or issues in College Student Personnel Administration. Offered during summers and other semesters as need arises and resources are available. S/U graded. Repeatable, under different subtitles.

CSPA 355 Perspectives of Orientation in Student Affairs (1) Consent of instructor. Provides an overview of student development theory, basic helping skills, and current issues on college campuses from an orientation perspective.

CSPA 360 Paraprofessionals in Student Affairs (1-2) Consent of instructor. Comprehensive training and support for persons interested in working as paraprofessionals in student services. Includes basic skills and development of sensitivity in meeting the developmental needs of college students. Unlimited repeatability.

CSPA 361 College Student Governance (2) Consent of instructor. Course designed to assist in personal and leadership development, awareness of current social and campus issues: to help translate course information into practical applications and better understanding of issues facing Higher Education.

CSPA 362 Cultural Relations/Study Abroad (2) Consent of instructor. This course has been developed to assist students who are studying abroad in the process of understanding cultural issues in their new environment. Repeatable, may be taken two times.

CSPA 363 Peer Advising II (1) Prerequisite: CSPA 263. Study theories of cognitive development, psychological type, and learning strategies as they apply to the increasingly diverse needs of incoming college students; discuss and practice strategies for mentoring students.

CSPA 365 Tutorial Assistance in the College Classroom: Level I Supplemental Instruction (1) Beginning tutorial leaders will become acquainted with the history of Student Affairs, student development theory, principles of learning assistance, communication skills, and standards of professional behavior.

CSPA 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CSPA 463 Peer Advising III (1) Prerequisites: CSPA 263, CSPA 363. Research topics related to the creation of a cohesive campus community and a welcoming environment for students; take a leadership role in activities designed to provide a smoother transition for new students.

CSPA 465 Tutorial Assistance in the College Classroom: Level 2 Supplemental Instruction (SI) Leader (1) Prerequisite: CSPA 365. Increases tutorial leaders' competencies in applying learning assistance theory, facilitating structured study sessions, and attending to individual differences; particular emphasis is placed on the development of leadership and mentoring skills.

CSPA 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. S/U graded. Repeatable, under different subtitles.

CSPA 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

CSPA 583 Crisis Intervention (1) Prerequisite: PSY 344 or PPSY 612 or equivalent. A theoretical and practical approach to intervention in crises common to college students. Emphasis on individual, group and environmental interventions.

CSPA 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

CSPA 650 College Student Development: Theory and Research (3) Examines theories of human development applicable to college student populations and practice of student affairs. Assessment techniques and instruments useful in measuring student development are examined.

CSPA 651 Philosophical, Historical and Cultural Foundations of Student Affairs in Higher Education (3) Study philosophies of education and epistemology. Outlines history of higher education in the United States. Origin/ history of role of student affairs. Emphasizes cultural perspective of ethnic minorities, women and other cultural subgroups in higher education.

CSPA 652 Enrollment Management Services (3) Examines and reviews the history, purposes, functions, organization and administration of Admissions, Financial Aid, Records and Registration, Advising and Orientation.

CSPA 653 Services for Environmental and Student Development (3) Covers history, purposes, functions, administrative and programming needs of such student services as counseling, health, career development and placement, student activities, residence life and services for diverse populations.

CSPA 655 Multiculturalism in Higher Education (3) Understand various cultures' impact on formation of values, attitudes and behaviors. Various factors are examined in relation to their influence on students' ability to benefit from higher education.

CSPA 656 Student Services in the Community College (2) Through an understanding of the unique educational mission and philosophy of the community college, the student will develop skills to analyze the student service needs of community college students, design and evaluate delivery systems.

CSPA 658 Management and Administration in Student Affairs (3) Application of management tools to student affairs. Skill development focuses on budgeting models, resource management, planning, evaluation and intervention strategies.

CSPA 661 Practicum in College Teaching for Student Development (2) Consent of instructor. Actual classroom experience in teaching under supervision any course that has as a part of its objectives, developmental content. S/U graded.

CSPA 670 Internship in Student Affairs (6) Consent of instructor and on-site supervisor. Minimum of 18 hours per week in practical, field-based, skill-building, experiential training. Provides in-depth experience with student services delivered at the site. S/U graded. Repeatable, maximum of 18 credits.

CSPA 675 Field Experience in Student Affairs (2) Experiential training in a field experience setting provides an overview of student service related to understanding of College Student Personnel Administration. S/U graded. Repeatable, maximum 12 credits under different subtitles.

CSPA 682 Legal Issues in Student Affairs (3) An examination of the legal implications for College Student Personnel Administration and the student-institutional relationship.

CSPA 684 Group Leadership in Student Affairs (2) Majors only. Covers theories underlying group dynamics and their application to student affairs settings. Topics include group norms, pressure, standards and membership, leadership issues and ethics. Experience in leading a group is included.

CSPA 750 College Students: Culture, Characteristics, Campus Life (3) Prerequisite: CSPA 650. Investigates student affairs profession and impact on development of college students. Examines current college subcultures. Considers effect on students' progress and success, of campus norms and student characteristics.

CSPA 752 Current Issues in College Student Personnel Administration (2) Consent of instructor. Examines and analyzes current problems and issues in the college student personnel field. Seminar format.

CSPA 753 Evaluative Strategies for Student Affairs (2) Examine techniques of evaluating student personnel services in higher education. Evaluate reported research and identify areas of needed research.

CSPA 755 Advanced Research Seminar (1) Prerequisite: EPSY 700 or take concurrently and 9 hours of statistics. Examine research needs of the profession. Develop a focused research question for the dissertation. Explore research planning and financial support. S/U graded. Repeatable, one time.

CSPA 758 Seminar in College Student Personnel Administration (1) Consent of instructor. Required doctoral seminar that covers topics of special importance to the profession. Must be taken three times, although credit is only required the first time. S/U graded. Repeatable, maximum of 10 credits.

CSPA 771 Administrative Leadership in Student Affairs (3) Studies each student's leadership styles and examines available measurement instruments. Applies findings to conflict management, organizational communication systems, budget paradigms and authority/responsibility scenarios.

CSPA 797 Doctoral Proposal Research (1-4) Permission of major advisor. A required dissertation proposal experience for all doctoral students. Four hours of credit must be earned in this course in partial fulfillment of requirements for all doctoral degrees before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

CSPA 799 Doctoral Dissertation (1-12) Permission of major advisor. Required of all doctoral candidates under the direction of a graduate faculty committee. May be taken only after admission to candidacy. S/U graded. Repeatable, no limitations.

DNCE - Dance

DNCE 166 Beginning Ballet (2) Gain knowledge and skill in the activity of ballet. Repeatable, maximum five credits.

DNCE 167 Ballroom Dance (1) Gain knowledge and skill in the activity of ballroom dancing. Repeatable, maximum of three credits.

DNCE 168 Ethnic Dance (1) Gain knowledge and skill in the activity of ethnic dance. Repeatable, maximum of three credits.

DNCE 169 Partnering (1) Prerequisites: DNCE 166, DNCE 167. Learning techniques of dancing with another for purposes of dance stage performance. Repeatable, maximum of three credits.

DNCE 170 Jazz Dance (1) Gain knowledge and skill in the activity of jazz dance. Repeatable, maximum of five credits.

DNCE 171 Modern Dance (1) Gain knowledge and skill in the activity of modern dance. Repeatable, maximum of five credits.

DNCE 173 Self-Awareness with Movement (1) Gain knowledge and skill in the activity of self-awareness with movement. Repeatable, maximum of three credits.

DNCE 174 Dance Conditioning (1) Gain knowledge and skill in body, strength, stability, flexibility, endurance, coordination, and awareness specific to dance movement. Repeatable, may be taken three times.

DNCE 175 Tap Dance (1) Gain knowledge and skill in the activity of tap dance. Repeatable, maximum of five credits.

DNCE 180 Intermediate Ballet (2) Prerequisite: DNCE 166 or equivalent. Gain intermediate knowledge and skill in the activity of ballet. Repeatable, may be taken five times.

DNCE 181 Intermediate Jazz Dance (2) Prerequisite: DNCE 170 or equivalent. Gain intermediate knowledge and skill in the activity of jazz dance. Repeatable, may be taken five times.

DNCE 182 Intermediate Modern Dance (2) Prerequisite: DNCE 171 or equivalent. Gain intermediate knowledge and skill in the activity of modern dance. Repeatable, may be taken five times.

DNCE 183 Intermediate Tap Dance (1) Prerequisite: DNCE 175 or equivalent. Gain intermediate knowledge and skill in the activity of tap dance. Repeatable, may be taken five times.

DNCE 290 Ballet Partnering (1) Prerequisite: Advanced Ballet for women, Intermediate Ballet for men or consent of instructor. Must have at least two years experience on pointe (women). Must be registered for ballet while taking this class. This partnering class is for advanced ballet students with a minimum of two years experience on pointe. It is a series of partnering turns, lifts, and promenades will be taught culminating in a classical pas de deux. Repeatable, may be taken three times.

DNCE 291 Advanced Ballroom Dance (1) Prerequisite: DNCE 167 or equivalent. Gain knowledge and skill in the art of advanced ballroom dance.

DNCE 292 Advanced Ballet (3) Prerequisite: DNCE 180 or consent of instructor. Gain knowledge and skill at advanced level in activity of ballet. Unlimited repeatability.

DNCE 293 Advanced Jazz Dance (2) Prerequisite: DNCE 181. Gain knowledge and skill at advanced level in the activity of jazz dance. Unlimited repeatability.

DNCE 294 Advanced Modern Dance (2) Prerequisite: DNCE 182. Gain knowledge and skill at advanced level in the activity of modern dance. Unlimited repeatability.

DNCE 295 Beginning Dance Theory (1) Discussion and study of the body's structure and movement potential. Analysis of movement principles and elements as related to dance technique.

DNCE 296 Beginning Choreography and Improvisation (2) Prerequisite: DNCE 295 or consent of instructor. Investigate and explore principles of modern dance composition such as movement manipulation, phrasing, spatial design and choreographic form. Experiences in spontaneous movement exploration.

DNCE 308 Workshop in Dance (1-2) Study in the problem areas of participants. Problems will vary with experts conducting workshops. S/U graded.

DNCE 354 Dance Performance (2) Study and practice basic theories of performing and/or choreography. Unlimited repeatability.

DNCE 355 Dance Performance II (2) Prerequisite: DNCE 354 or consent of instructor. Study and practice of basic theories of dance performance, either in student informal or formal concert setting. Unlimited repeatability.

DNCE 356 Dance Performance III (2) Prerequisites: DNCE 354, DNCE 355 or consent of instructor. Basic theories of dance composition are put into practice by choreographing for an informal or formal dance concert. Unlimited repeatability.

DNCE 357 Dance Performance IV (2) Prerequisites: DNCE 354, DNCE 355, DNCE 356 or consent of instructor. Gain performance and/or choreographic experience in a small professional dance company. Unlimited repeatability.

DNCE 397 Intermediate Technique, Improvisation and Composition (2) Prerequisites: DNCE 295, DNCE 296. Learn intermediate level dance technique; movement analysis and composition as an intermediate dance student.

DNCE 440 Labanotation/Movement Analysis (2) Prerequisites: DNCE 180, DNCE 181, DNCE 182 and DNCE 295. Consent of instructor. Study of analyzing and notating dance movement.

DNCE 453 Teaching Methods, Rhythmic Analysis and Accompaniment (3) Prerequisites: DNCE 295, DNCE 296, DNCE 170, DNCE 171 or consent of instructor. Practice and study of rhythm, dance accompaniment and teaching methods used in dance classrooms.

DNCE 454 Dance History and Philosophy (2) Consider the history and development of dance as it is culturally determined and the philosophy influencing dance.

DNCE 455 Dance Philosophy/Trends (2) Prerequisites: DNCE 166, DNCE 170, DNCE 171, DNCE 296. Consider trends in dance/art form. Familiarity with dance criticism.

DNCE 456 Advanced Technique, Improvisation and Composition (2) Prerequisites: DNCE 295, DNCE 296, DNCE 397 or consent of instructor. Investigate advanced dance technique, theory, composition and problems connected with staging a dance performance.

DNCE 459 Dance Production in High School and College (2) Prerequisites: DNCE 295, DNCE 296, DNCE 456 or consent of instructor. Make practical application of principles that serve the presentation of dance. Deal with the choreographic problems, its direction and production involving theatre application of set, costume and light design.

DNCE 460 Dance Kinesiology (3) Prerequisite: KINE 220 or PE 211. Study of body's potential for movement. Knowledge about stretching, strengthening, injuries, correctives, good nutrition, weight control and biomechanical applications in dance.

DNCE 480 Junior/Senior Seminar (1) Prerequisites: DNCE 292, DNCE 293, DNCE 295 and DNCE 296. Juniors or above. Learning about job opportunities and job preparation procedures. A chance to dialogue and ask questions about dance fields.

DNCE 490 Dance Apprenticeship (3) Completion of Dance Emphasis required. On-site experience with professional dance company either as performer or in another approved capacity.

DNCE 492 Internship in Dance Leadership (3) Completion of Dance Emphasis required or consent of instructor. Practice in leading dance classes. Experience chosen according to student's interest area. S/U graded.

DNCE 493 Practicum in Dance Teaching (3) Completion of Dance Emphasis. On-site experience in teaching dance in an approved agency.

DNCE 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

DNCE 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

DNCE 553 Teaching Methods, Rhythmic Analysis and Accompaniment (3) Prerequisites: DNCE 295, DNCE 296, DNCE 170, DNCE 171 or consent of instructor. Practice and study of rhythm, dance accompaniment and teaching methods used in dance classrooms.

DNCE 554 Dance History and Philosophy (2) Consider the history and development of dance as it is culturally determined and the philosophy influencing dance.

DNCE 555 Dance Philosophy/Trends (2) Prerequisites: DNCE 166, DNCE 170, DNCE 171, DNCE 296. Consider trends in dance/art form. Familiarity with dance criticism.

DNCE 556 Advanced Technique, Improvisation and Composition (2) Prerequisites: DNCE 295, DNCE 296, DNCE 397 or consent of instructor. Investigate advanced dance technique, theory, composition and problems connected with staging a dance performance.

DNCE 559 Dance Production in High School and College (2) Prerequisites: DNCE 295, DNCE 296, DNCE 456 or consent of instructor. Make practical application of principles that serve the presentation of dance. Deal with the choreographic problems, its direction and production involving theatre application of set, costume and light design.

ECON - Economics

ECON 101 Understanding the Contemporary Economy (3) Non-majors only. A variety of learning experiences will be utilized to provide the knowledge and skills necessary to understand individual economic roles in society as well as to analyze current economic issues.

ECON 103 Introduction to Economics: Macroeconomics (3) Discuss and study macroeconomic issues and models of aggregate economic analysis with emphasis on income, expenditures, fiscal and monetary policy, employment, inflation and growth.

ECON 105 Introduction to Economics: Microeconomics (3) Supply and demand, consumer utility, production and costs, perfect competition, pure monopoly, resource allocation, public goods, income distribution and economic regulation.

ECON 245 Urban Planning Economics (3) Prerequisites: ECON 103 and ECON 105. Students will study economic problems relevant to urban areas including land use, congestion, housing and poverty. The role of the private and public sector in resolving these problems will be analyzed. Fee required.

ECON 250 Comparative Economic Systems (3) Prerequisites: ECON 103 and ECON 105. Analysis of capitalism, socialism and communism as types of economic systems; origins, historical development, major characteristics, successes and failures and future development of prominent world economies.

ECON 277 Industrial Organization (3)

Prerequisite: ECON 105. Theoretical and empirical study of the structure, organization and conduct of firms on economic performance and welfare.

ECON 280 Money and Banking (3)

Prerequisites: ECON 103 and ECON 105. The study of monetary theory, monetary policy, money, banking and the Federal Reserve System.

ECON 303 Intermediate Macroeconomics (3)

Prerequisites: ECON 103, ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

ECON 304 Women and the Economy (3)

Prerequisite: ECON 105. Explore the economic status of women, the institutions that have affected their economic decisions and impact on the performance of the economy.

ECON 305 Intermediate Microeconomics (3)

Prerequisites: ECON 103, ECON 105, MATH 124 or MATH 175. The theory of consumer choice, of the business firm and resource allocation.

ECON 315 Labor/Management Economics (3)

Prerequisites: ECON 103 and ECON 105. Examine American labor movement, development of labor laws and policy, economics of labor markets, employment, collective bargaining practice and union impact on contemporary industrial organization.

ECON 341 Public Finance (3)

Prerequisites: ECON 103, ECON 105. Government financing at federal, state and local levels as reflected in expenditures, revenues and debt.

ECON 345 International Trade (3)

Prerequisites: ECON 103, ECON 300. Analyze theoretical underpinnings of international trade and their relevance to practical issues. Trade impediments, trade policies and institutions that have evolved in a dynamic international system are also discussed.

ECON 346 International Finance (3)

Prerequisites: ECON 103, ECON 105, ECON 303. Analyze theories and functions of the international financial system, stressing balance of payments and national income problems, adjustment mechanisms, exchange rates and capital flows.

ECON 356 Water Resource Economics (3)

Prerequisite: ECON 105, at least one upper division ECON course. Examination of economic principles governing water planning, development and law. Discussion of supply and demand, quality and political issues. Relationship to Colorado and local situation.

ECON 360 Economics of Growth and Development (3)

Prerequisites: ECON 103, ECON 105. Analyze the theory, processes and history of economic growth and development, emphasizing resource use and productivity in less developed areas.

ECON 400 Managerial Economics (3)

Prerequisites: ECON 105, ECON 300, MATH 131 or MATH 176. Economic principles in managerial decision-making including cost, price, demand, market structure and related analysis emphasizing case studies and microcomputers. Fee required.

ECON 402 Contemporary Economic Problems (3)

Prerequisites: ECON 103, ECON 105. Learn the contribution of economic models and techniques in understanding current issues facing society. Analyze the efficiency and equity impact of alternative solutions. Senior status required.

ECON 422 Directed Study (1-4)

Consent of major advisor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ECON 451 Quantitative Economics (3)

Prerequisites: ECON 300, ECON 303, MATH 131 or MATH 176. Study of the principal mathematical techniques used in economic analysis; fundamental concepts underlying marginal analysis, linear programming, decision and game theory. Microcomputers will be used. Fee required.

ECON 452 Econometrics (4)

Prerequisites: ECON 300, ECON 303, BACS 390 or STAT 311, MATH 131 or MATH 176. Estimating statistical regression models of economic relationships; treatment of special problems that may arise in analysis of economic data. Microcomputers will be used. Fee required.

ECON 453 Business and Economic Forecasting (3)

Prerequisites: BACS 390 or STAT 311, ECON 303, ECON 305, MATH 131 or MATH 176. Analysis of fluctuations in economic activity, study of responsible factors, forecasting techniques and models. Time series model building and forecasting. Emphasizes applied computer assignments. Fee required.

ECON 455 Regional Theory and Methods (3)

Prerequisites: ECON 300, ECON 303, MATH 131 or MATH 176. Definition and analysis of regions and their problems; regional programs and operational models. National planning and autonomous development. Microcomputers will be used. Fee required.

ECON 462 Economic History of the United States (3)

Prerequisites: ECON 103, ECON 105. Review the historical changes in United States economic institutions. Assess United States history based on macroeconomic and microeconomic pressures. Emphasis is on post-Civil War period.

ECON 470 History of Economic Thought (3)

Prerequisites: ECON 103, ECON 105. Trace the evolution of economic thinking from 17th century to modern day. See roles played by certain "schools" of economic thinkers, the genesis of their ideas and their contributions.

ECON 480 Research in Economics (2-5)

Prerequisites: ECON 300, ECON 303 or consent of instructor. Learn the basic skills involved in economic research including principles of the scientific method and model application. Prepare a research proposal and final report on a timely economic problem. Repeatable one time, maximum eight credits. Fee required.

ECON 492 Internship in Economics (2-5)

Prerequisites: ECON 300, ECON 303 or consent of instructor. Internships in the public and private sectors to allow the students to have practical experience in the market place. Repeatable one time, maximum eight credits.

ECON 499 Assessment Review (1)

Prerequisites: ECON 300, ECON 303, ECON 452. Seniors or above. Review of intermediate macroeconomics, microeconomics and econometrics in preparation for an assessment examination to be given in April. Grade will depend, in part, on a practice examination.

ECON 502 Advanced Contemporary Economic Problems (3)

Prerequisites: ECON 103, ECON 105. Learn the contribution of economic models and techniques in understanding current issues facing society. Analyze the efficiency and equity impact of alternative solutions. Graduates only.

ECON 503 Intermediate Macroeconomics (3)

Prerequisites: ECON 103, ECON 105. Study the determinants of aggregate demand, aggregate supply, employment, macroeconomic objectives and policies.

ECON 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ECON 509 Advanced Placement Program in Economics (1-3)

Prerequisites: ECON 103 or ECON 105 or equivalent. Explore methods and materials for teaching Advanced Placement economics at the secondary level. Review basic economic concepts of both macro or micro through a variety of classroom learning experiences. Unlimited repeatability.

ECON 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ECON 551 Quantitative Economics (3)

Prerequisites: ECON 300, ECON 303, MATH 131 or MATH 176. Study of mathematical techniques used in economic analysis; fundamental concepts underlying marginal analysis, linear programming, decision and game theory. Microcomputers will be used. Fee required.

ECON 552 Econometrics (4)

Prerequisites: ECON 300, ECON 303, BACS 390 or STAT 311, MATH 131 or MATH 176. Estimating statistical regression models of economic relationships; treatment of special problems that may arise in analysis of economic data. Microcomputers will be used. Fee required.

ECON 555 Regional Theory and Methods (3)

Prerequisites: ECON 300, ECON 303, MATH 131 or MATH 176. Definition and analysis of regions and their problems; regional programs and operational models. National planning and autonomous development. Microcomputers will be used. Fee required.

ECON 570 History of Economic Thought (3)

Prerequisites: ECON 103, ECON 105. Trace the evolution of economic thinking from the 17th century to modern day. See roles played by certain "schools" of economic thinkers, the genesis of their ideas and their contributions.

ECON 580 Research in Economics (2-5)

Prerequisites: ECON 300, 303 or consent of instructor. Learn the basic skills involved in economic research including principles of the scientific methods and model application. Prepare a research proposal and final report on a timely economic problem. Fee required. Repeatable, one time, maximum eight credits.

EDEC - Elementary Education: Early Childhood**EDEC 231 Development of Infants and Toddlers (3)**

Required laboratory arranged. Investigate growth patterns from conception through infancy and the third year. Include influences on early development, guidance, care provision and adults' responsibilities for providing favorable environment. Observe infants and toddlers.

EDEC 308 Early Childhood Workshop (1-10)

Study problems in early childhood education. Area covered in any one workshop determined by subtitle. S/U graded. Repeatable, under different subtitles.

EDEC 333 Development and Guidance of Young Children (3) (2 lecture, 2 laboratory) Required laboratory arranged. Approach the physical, intellectual, social and emotional growth of young children from developmental point of view. Discuss theory, observation and appropriate guidance as approaches to primary child study. Observe children.

EDEC 334 Preschool/Kindergarten Curriculum and Methods (3) Prerequisites: EDEC 333, provisional or Full admission to PTEP. Juniors/seniors only. Study curriculum development, including selecting art, literature, music and science for preschool and kindergarten children. Plan lessons and study specific methods and techniques of teaching.

EDEC 336 Child Within the Family (3) Cover topics concerning individuals within the family as it develops role behavior, personality, self-identity and stability. Discover how interaction focuses one's defenses against change in family crises.

EDEC 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEC 437 Administration of Programs for Young Children (3) Juniors/seniors only. Learn the organization and management of various types of child care centers, emphasizing program planning, selecting and organizing equipment and learning administrative procedures.

EDEC 439 Parent/Child/Teacher Relationships (3) Deal with relationships between parents, children and teachers, particularly stressing resources for meeting problems through cooperative interaction.

EDEC 460 Primary Curriculum and Methods (3) Prerequisite: EDEC 333 or consent of instructor. Corequisite: EDLS 360. Provisional or Full admission to PTEP required. Juniors/seniors only. Theories and practices for the education of primary aged children, with an emphasis on curricular organization, content, methodology and scheduling.

EDEC 462 Classroom Management in Early Childhood (3) Juniors or above. Examine those components of effective classroom management procedures with children in groups. Topics include theoretical perspectives, rules and organization, prosocial behavior and effective pedagogical decisions.

EDEC 463 Diagnostic Teaching in Early Childhood (3) Full admission to PTEP required. Junior/seniors only. Discover various diagnostic tools and techniques appropriate for measuring a young child's progress in learning and use results to individualize instruction.

EDEC 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDEC 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDEC 539 Parent Education and Involvement in Early Childhood/Primary (3) Deal with relationships between parents, children and teachers stressing parent involvement in education and resources for promoting children's success in school.

EDEC 562 Classroom Management in Early Childhood (3) Juniors or above. Examine those components of effective classroom management procedures with children in groups. Topics include theoretical perspectives, rules and organization, prosocial behavior and effective pedagogical decisions.

EDEC 601 Practicum (1-3) Open by invitation to resident graduate students. Supervised professional activity in early childhood education, approximately 2 hours per day. A well-written paper must be filed with instructor before credit is given. Repeatable, maximum of six credits.

EDEC 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEC 648 Psycholinguistics in Early Childhood (3) Designed to acquaint the student with the language development of the young child. Attention given to the nature of English, language acquisition, instructional implications and applications.

EDEC 660 Critical Issues in Early Childhood (3) Investigating trends and issues concerning the young child, stressing curriculum, sound education policies, especially the need for cultural diversity, as well as issues of compelling contemporary significance.

EDEC 662 Research in Early Childhood and Primary Education (3) Receive background in research concerning factors affecting the development and learning of young children and their families, engage in single-subject behavior management research.

EDEC 663 Educational Assessment, Evaluation and Prescription for the Young Child (3) Focus on assessment tools and techniques for teacher evaluation of educational progress in young children. Plan educational programs with appropriate curricular content for individual children.

EDEC 664 Seminar in Early Childhood and Primary Education (3) Explore topics in early childhood education in planned sequence that includes research, field settings, discussions and contemporary issues, especially the need for cultural diversity.

EDEC 670 Curriculum and Instruction in Early Childhood and Primary Education (3) Examine components of effective instruction in early childhood and primary levels, including theoretical bases, environment, organization and management, teacher's role, curriculum content and evaluation. Relevant research is investigated.

EDEC 675 Play and Psychosocial Development in Early Childhood (3) Focus on theories of play in socio-drama, therapy and cognition. Motor, emotional and psychosocial development explored. Play of successive development phases and individual meaning for each child emphasized.

EDEC 677 Problem Solving Strategies in Early Childhood and Elementary Mathematics (2) Prerequisite: EDEL 420 or EDEL 520 or equivalent. Exploration of problem solving as a focus in elementary math. Emphasis on activities and strategies in problem solving in math and other subjects in elementary schools.

EDEC 680 Play and Development of High Risk Children (2) Prerequisite: EDEC 675 or equivalent. Examination of psychosocial development of young children and the role of play, particularly with high risk children. Stages, values and assessment of play discussed.

EDEC 701 Advanced Practicum in Early Childhood Education (1-4) Open only by invitation to resident doctoral students. Supervised professional activity in Early Childhood Education. A well written paper must be filed with the supervising instructor before credit is given. S/U graded. Repeatable, maximum of six credits.

EDEC 750 The Professional Early Childhood Teacher Educator (3) Designed for the Early Childhood professional completing doctorate. Examines and encourages participation in scholarly activity, professional service and organizational activity in Early Childhood.

EDEC 790 Supervised Practicum in College Teaching (3) Receive experiences in observation and supervised practice in college teaching to be used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

EDEC 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

EDEC 799 Doctoral Dissertation (1-12) Required of all doctoral candidates, who must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

EDEL - Elementary Education

EDEL 200 Orientation to Education (1) Visit and participate in classroom activities (preschool through high school) to determine probable level of degree program emphasis. Engage in diagnostic writing and speaking activities for personalized evaluation.

EDEL 308 Elementary Education Workshop (1-10) Study problems in elementary education. S/U graded. Repeatable, may be taken four times to a maximum of 10 credits, under different subtitles.

EDEL 405 Cadet Teaching (1-6) Cadet teaching is the field component based in the school setting taken concurrent with "blocked" classes; i.e., EDRD 410/EDEL 420 and EDEL 440/EDEL 450; emphasis of theory into practice. S/U graded. Repeatable, maximum of eight credits.

EDEL 420 Effective Instruction in Elementary School Mathematics (3) Full admission to PTEP or certification at undergraduate level required. A comprehensive examination of issues, trends and practices in elementary school mathematics programs, including instructional strategies, planning, development, materials and evaluation. Emphasis on promoting problem solving in school mathematics curriculum.

EDEL 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEL 430 Learning About Teaching and Learning (6) Prerequisites: EPSY 346, EDSE 430. Corequisite: ET 301. Provisional or full admittance to PTEP required. Students immersed in learning about teaching, reflecting on learning and learners. One week prior to University classes in partnership schools. Seminars, educational technological applications and classroom interactions located in schools.

EDEL 440 Effective Instruction in Elementary School English/Language Arts (3) Full admission to PTEP or certification at undergraduate level required. Examines the nature and acquisition of English as a basis for effective instruction in handwriting, spelling, oral and written composition. Considers methods, materials, selection and placement of content, diagnosis, evaluation and provision for individual differences.

EDEL 450 Effective Instruction in Elementary School Social Studies (3) Full admission to PTEP or certification at undergraduate level required. An in-depth consideration of issues, problems and practices in the elementary social studies classroom, including instructional strategies, planning, materials and evaluation. Emphasis on thinking in a pluralistic democratic society.

EDEL 460 Integrated Methods I: Reading, Language Arts, Science and Health (9) Prerequisites: ET 301, EDEL 430. Must take EDEL 460 or EDEL 470 the semester prior to Student Teaching (EDEL 490), but one must be taken concurrently with EDEL 490. Provisional or full admittance to PTEP required. Juniors or above. Course integrates methods of reading/reading diagnosis, language arts, social studies and art. Students learn discipline specific instructional techniques, activities and content knowledge in school setting.

EDEL 470 Integrated Methods II: Math, Social Studies, Art, Music and Physical Education (9) Prerequisites: EDEL 430, ET 301. Must take EDEL 460 or EDEL 470 the semester prior to Student Teaching (EDEL 490), but one must be taken concurrently with EDEL 490. Provisional or full admittance to PTEP required. Seniors or above. Course integrates methods of math, science, health, physical education, and music. Students learn discipline specific instructional techniques, activities and content knowledge in school setting.

EDEL 490 Student Teaching and Debriefing Seminar (8) Can take EDEL 460 or EDEL 470 the semester prior to Student Teaching (EDEL 490), but one must be taken concurrently with EDEL 490. Full admittance to PTEP required. Consent of advisor. Seniors or above. A capstone field experience which includes ten weeks of continuous field experience with supervision by university faculty and a one week debriefing seminar. One week prior to University classes in Partnership Schools. S/U graded.

EDEL 505 Cadet Teaching (1-6) Cadet teaching is the field component based in the school setting taken concurrent with "blocked" classes; i.e., EDRD 410/EDEL 420 and EDEL 440/EDEL 450; emphasis of theory into practice. S/U graded. Repeatable, maximum of eight credits.

EDEL 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDEL 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDEL 520 Effective Instruction in Elementary School Mathematics (3) Prerequisite: EDRD 510 or take concurrently. Full admission to PTEP or certification at undergraduate level required. A comprehensive examination of issues, trends and practices in elementary school mathematics programs, including instructional strategies, planning, development, materials and evaluation. Emphasis on promoting problem solving in school mathematics curriculum.

EDEL 540 Effective Instruction in Elementary School English/Language Arts (3) Full admission to PTEP or certification at undergraduate level required. Examines the nature and acquisition of English as a basis for effective instruction in handwriting, spelling, oral and written composition. Considers methods, materials, selection and placement of content, diagnosis, evaluation and provision for individual differences.

EDEL 550 Effective Instruction in Elementary School Social Studies (3) Corequisites: EDEL 540, EDFE 370. Full admission to PTEP or certification at undergraduate level required. In-depth consideration of issues, problems and practices in the elementary social studies classroom, including instructional strategies planning, materials and evaluation. Emphasis on thinking in a pluralistic democratic society.

EDEL 601 Practicum (1-3) Open only by invitation to resident graduate students. Supervised professional activity in elementary education, approximately two hours per day. Repeatable, maximum of six credits. A well-written paper must be filed with instructor before credit is given.

EDEL 612 The Elementary School Curriculum (3) A review and analysis of competing conceptualization of the elementary school curriculum with an emphasis on designing, developing, implementing and evaluating an interdisciplinary curriculum. Current research will be surveyed.

EDEL 613 Integrated Curriculum (3) Theory, design, development, implementation and evaluation of integrated curriculum. Students develop interdisciplinary units of study and learn active learning strategies and techniques consistent with an effective rationale for integrated curriculum.

EDEL 619 Pluralism in Education (3) Full admission to PTEP or certification at undergraduate level required. Assists student in recognizing need for creating processes that enable children, educators and others to support and design a culturally and socially diverse curriculum.

EDEL 620 Researched Applications for Instruction in Mathematics, K-9 (3) Prerequisite: EDEL 420 or EDEL 520 or experience as elementary/middle school teacher. Consider in detail the problems concerned with selection of what to teach, grade placement of content, methods and materials for teaching and means of evaluating achievement in mathematics.

EDEL 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDEL 640 Researched Applications for Instruction in the English Language Arts, K-9 (3) Prerequisite: EDEL 440 or EDEL 540 or experience as elementary/middle school teacher. Consider problems, trends and issues in the teaching of English, handwriting and spelling. Special focus on research. Content varies to reflect interests and concerns of students.

EDEL 650 Researched Application for Instruction in Social Studies, K-9 (3) Prerequisite: EDEL 450 or EDEL 550 or experience as elementary/middle school teacher. Designed for experienced teachers, this course focuses on strategies for improving social studies curriculum and instructions. Major trends, issues and research affecting educating children for citizenship in a pluralistic, democratic society.

EDEL 679 Researched Applications in Appraisal, Evaluation and Clinical Supervision of Teaching in the Elementary and Middle School (3) Emphasis is placed on the development of knowledge, skills and sufficient comprehension to direct the development of instructional appraisal and evaluation behaviors, with special emphasis on self-improvement modalities.

EDEL 699 Thesis (1-6) Optional for Master of Arts programs on recommendation of major advisor. Successful completion of a formal thesis paper and oral defense required. S/U graded. Repeatable, no limitations.

EDEL 701 Advanced Practicum in Elementary Education (1-4) Open only by invitation to resident doctoral students. Supervised professional activity in Elementary Level Education. A well written paper must be filed with the supervising instructor before credit is given. Repeatable, maximum of six credits.

EDEL 725 Seminar in Elementary School Mathematics (2) Prerequisite: EDEL 520 or EDEL 620. Cover important problems in the teaching and supervision of mathematics in the elementary school. Content may vary from year to year according to needs of participants. S/U graded.

EDEL 745 Seminar in Elementary School English (2) Prerequisite: EDEL 540 or EDEL 645. Advanced study and original research in teaching English/language arts in the elementary and middle school. S/U graded.

EDEL 755 Seminar in Elementary Education Social Studies (2) Prerequisite: EDEL 550 or EDEL 650. A consideration of the research applicable to crucial issues in elementary social studies including the child's development of key concepts, values, morals and skills; curriculum development and evaluation. S/U graded.

EDEL 790 Supervised Practicum in College Teaching (3) Experience in observation and supervised practice of college teaching for doctoral candidates planning to teach at college and university levels. Observations and experiences used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

EDEL 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

EDEL 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Students must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

EDF - Foundations of Education

EDF 201 Introduction to Multiculturalism (3) Acquaints students with concepts, content, strategies and resources needed in a multicultural pluralistic environment. Enables student to integrate content on pluralism into community settings. Attitudes and insights emphasized.

EDF 364 Foundations of Education (4) Focuses on philosophical, historical and social foundations of education, the impact of technology and social change on schools, educational policy and principles of effective practice, teaching strategies, effective communication, human relations, facilitation of group process, curriculum planning and design.

EDF 366 Conceptions of Schooling: Context and Process (4) Corequisites: ET 201 for elementary education program; EDMG 320 for middle grades program; STEP 262 for secondary program. Full admittance to PTEP required. Social, historical and philosophical perspectives of schooling including legal, ethical and multicultural foundations for the professional educator in a democratic society and their implications for classroom communication, organization and management.

EDF 385 Law and the Classroom Teacher (2) Focus on legal rights, roles and responsibilities of educators, emphasizing obligations to students, administrators, school boards and public. Examine current issues in school management, organization, finance, child abuse and neglect.

EDF 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDF 500 Conceptions of Schooling (3) Investigation of social contributions of schools. Determination of what the public expects from local schools, assessing how accurately present systems meet public's expectations and individual implications for teaching.

EDF 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDF 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDF 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDF 640 Psychological Foundations of Education (3) Exploration and analysis of possible range of assumptions about nature of human activity (thinking, behaving, feeling) and implications of those assumptions relative to educational enterprise.

EDF 662 Foundations of Curriculum Development and Instructional Practice (4) Designed to focus on nature and scope of curriculum planning and development and the instructional approaches, traditional and contemporary, for putting curriculum into affect.

EDF 665 Sociological Foundations of Education (3) Analyze role of educational institution from sociological perspectives. Focus upon socialization process, issues arising from social and cultural differences in school populations and examine sociology oriented strategies for educational change.

EDF 685 Philosophical Foundations of Education (3) Examine leading contemporary and classical philosophical systems and how they culminate in practical educational goals, systems of justification and practices. Includes the study of educational aims and values.

EDFE - Educational Field Experiences

EDFE 170 Introduction to Field Based Experience (1-3) Instructor consent. Practical experience for those wishing to explore a career in teaching. Placement in most public or private schools, agencies, preschool through high school. Experience is to coordinate practice with theory. S/U graded. Unlimited repeatability.

EDFE 270 Field Based Experience (2) Consent of instructor and first semester at UNC or UNC GPA of 2.50. Entry into the teaching profession. Attend orientation presentation and apply for admission to PTEP. Aide assignment in school or agency at preschool-12 level. Required portfolio and seminars. S/U graded.

EDFE 271 Field Experience Seminar (1) Consent of instructor and first semester at UNC or UNC GPA of 2.50, waiver of EDFE 270 field component. Designed to introduce students to issues and professional concerns of educators. Students are screened for admittance to PTEP. S/U graded.

EDFE 370 Advanced Field Based Experience (1-3) Prerequisite: EDFE 270. Full admission to PTEP or certification at the undergraduate level required, instructor consent. Practical experience in teacher preparation programs. Assignments to assist personal or professional development in public or private school. Preschool-12 level. Portfolio and seminars required. S/U graded. Unlimited repeatability.

EDFE 401 Practicum (1-3) Full admission to PTEP or certification at the undergraduate level required. Open only by invitation to resident undergraduate students. Supervised professional activity in the major field. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. Portfolio required. S/U graded. Repeatable, maximum of three credits.

EDFE 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDFE 444 Supervised Teaching (1-18) Full admission to PTEP or certification at the undergraduate level required. Meets student teaching requirement for certification. Supervision by University consultant and certified teacher whose endorsement is consistent with that of the student teacher. Experience includes significant and continuous involvement of the student for 1 credit/week. Portfolio required. S/U graded. Repeatable, maximum of 18 credits, under different subtitles.

EDFE 445 Advanced Supervised Teaching (1-18) Full admission to PTEP or certification at the undergraduate level required, EDFE 444. Available to students who have completed minimal supervised teaching requirement for certification but who wish to improve teaching techniques with additional field experience. May be repeated only with permission of instructor. Portfolio required. S/U graded. Repeatable, maximum of 18 credits.

EDFE 501 Practicum (1-4) Full admission to PTEP or certification at undergraduate level required. Arrange with instructor. Undertake educational field studies in school settings, either individual or team oriented and focus on practical and relevant assessment of needs in teacher education. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. S/U graded. Unlimited repeatability.

EDFE 502 Teacher Leadership (3) Develop essential skills, knowledge and competencies that enable educators to assume a broad range of teacher leadership roles including consultation, mentorship, shared decision making approaches and instructional leadership.

EDFE 503 Alternate Teaching Strategies (3) Expands teacher's repertoires in the classroom by developing facility with alternate instructional strategies. Strategies studied and practiced facilitate critical/creative/inductive thinking and social participation and inquiry skills.

EDFE 601 Practicum (1-3) Full admission to PTEP or certification at undergraduate level required. Open only by invitation to resident graduate students. Supervised professional activity in student's major field. Two copies of a well-written paper must be filed before credit is given; one with instructor and one with program facilitator. S/U graded. Repeatable, maximum of three credits.

EDFE 610 Field Experience (1-18) Full admission to PTEP or licensure, at graduate level required or previous licensure, EDFE 444, or equivalent. Individually arranged field experiences under supervision of university and school or community staff. A variety of sites are available year round. S/U graded. Unlimited repeatability.

EDFE 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDFE 640 Supervision of Educational Field Experience (2) Required laboratory arranged. Previous teacher certification required and consent of instructor. Professional development of certified educators in the supervision of teacher aides, clinical experience students, student teachers and interns. Designed to correlate theory and practical supervision techniques in a school setting. S/U graded.

EDLD - Education of Linguistically Different

EDLD 602 Teaching Linguistically Diverse Learners (3) This course will introduce future teachers to the theoretical, practical, and legal aspects of the education of students who speak English as a second language.

EDLD 603 Methods and Assessment for ESL and Bilingual Education (3) Prerequisite: EDLD 602. This course will introduce students to the use of assessments and procedures and to teaching methods appropriate when working with linguistically diverse students.

EDLD 604 Field Experience in TESOL and Bilingual Education (3) Prerequisites: EDEL 619, EDLD 602 and EDLD 603. This course will provide pre-service and in-service teachers with the opportunity to observe instructional strategies for students who speak English as a second language, and participate in conducting the strategies observed.

EDLD 605 Advanced Seminar in Bilingual Education and TESOL (2) Prerequisites: EDLD 602, EDLD 603 and SRM 600. This course will study contemporary issues in the field of bilingual education and TESOL. Students will discuss relevant issues related to research and practice in bilingualism, second language acquisition, and teaching methodology.

EDLS - Educational Field Experience: Laboratory School

EDLS 360 Clinical Experience: Primary (1-3) Full admission to PTEP or certification at the undergraduate level required. Consent of instructor. For Early Childhood/Elementary Education majors. Minimum of 25 contact hours with level K-3 children for each hour of credit. Weekly seminar.

EDLS 362 Clinical Experience: Middle School (1-3) Full admission to PTEP or certification at the undergraduate level required. Consent of instructor. Professional development for Middle School majors. Minimum of 25 contact hours with level 6-8 children in a specific area for each hour of credit. Weekly seminar.

EDLS 363 Clinical Experience: Secondary (1-3) Full admission to PTEP or certification at the undergraduate level required. Consent of instructor. Professional development for secondary majors. Minimum of 25 contact hours with level 7-12 children in a specific area for each hour of credit. Weekly seminar.

EDMG - Elementary Education: Middle Grades

EDMG 200 Exploring Teaching: Emphasis in the Middle Grades (2) Corequisite: ET 201. An investigation of the teaching profession K-12, with an emphasis in the middle grades through personal reflection, observation, writing and discussion activities. Required laboratory arranged.

EDMG 320 Introduction to Middle Grades Education (3) Prerequisites: EDMG 200, ET 201. Corequisites: EDF 366, EDSE 411. Juniors or above. Investigate the history, philosophy, and organization of middle level education. Emphasis will be placed on the nature of young adolescents, the school environment, curriculum and the middle grades teacher. Required lab arranged.

EDMG 420 Middle Grades Teaching and Learning (3) Prerequisite: EDMG 320. Corequisites: EDRD 340 and EPSY 346. Juniors or above. Required laboratory arranged. Full admittance to PTEP required. This course will provide information and experiences which enable students to use instructional and management strategies which are effective in the middle grades classroom and that are developmentally appropriate for young adolescents.

EDMG 440 Middle Grades Integrated Curriculum and Instruction (5) Prerequisite: EDMG 420. Corequisites: EDSE 411, EDRD 440, ET 301. Juniors or above. Full admittance to PTEP required. This course will provide information and experiences which develop an understanding between developmentally appropriate instructional strategies for young adolescents and curriculum integration through the team. Required lab arranged.

EDMG 490 Middle Grades Student Teaching (12) Prerequisite: EDMG 440. Corequisite: EDMG 491. Consent of advisor. Seniors or above. Full admittance to PTEP required. This is a capstone field experience which includes 16 weeks of continuous field experience involvement with supervision by a University consultant and professionally licensed middle grades teacher. S/U graded.

EDMG 491 Middle Grades Student Teaching Seminar (1) Prerequisite: EDMG 440. Corequisite: EDMG 491. Seniors or above. Consent of advisor. Full admittance to PTEP required. This is a capstone seminar which facilitates the knowledge, skills, and dispositions needed to successfully complete the middle grades student teaching experience. S/U graded.

EDMS - Elementary Education: Middle School

EDMS 302 Orientation to Middle School (3) Provisional or full admission to PTEP or certification at undergraduate level required. Investigate the history, philosophy and current curriculum of middle schools. Emphasize organizational plans, skills required of teachers, nature of the curriculum and problems of articulation with other schools in a system.

EDMS 360 Middle School Instructional Practices (4) Prerequisites: EDMS 302 and Full admission to PTEP or undergraduate certification. Students seeking middle school certification will gain knowledge and application of instructional strategies, methods and techniques that are developmentally appropriate to early adolescents at the middle level.

EDMS 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDMS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDMS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDMS 601 Practicum (1-3) The practicum is a project designed by the student with consent of advisor. It is intended to provide a practical application of the concepts presented within the graduate program. The project is reported in a written form. Repeatable, may be taken two times.

EDMS 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDMS 665 Middle School Theory, Philosophy and Curriculum (3) A study of the theory, philosophy, curriculum and instructional practices appropriate for a middle school learning environment.

EDMS 667 Assessment, Design and Evaluation of Middle School Curriculum (3) Identification of content accreditation criteria, curriculum modeling, needs assessments, objectives, curriculum mapping, priority setting and action planning for elementary and middle schools.

EDMS 669 Integrated Curriculum for Middle Grades (3) Investigations of how the content fields of language arts, mathematics, science, social science, reading and related arts connect in the middle school curriculum. Specific attention will be given to identifying common themes, concepts and skills among the various components of the curriculum.

EDMS 670 Instructional Practices in Middle Grades Education (3) Graduates only. This course is designed for graduate students interested in investigating the theories and current trends/issues involved with instructional strategies, methods and management techniques that are developmentally appropriate for young adolescents at the middle school level.

EDMS 790 Supervised Practicum in College Teaching (3) Experiences in observation and supervised practice of college teaching for doctoral candidates planning to teach at college or university levels. Observations and experiences used as a basis for analysis of learning experiences. S/U graded. Repeatable, maximum of six credits.

EDRD - Elementary Education: Reading

EDRD 003 Introduction to College Reading (3) Consent of instructor. This course emphasizes reading comprehension, vocabulary and rate and seeks to help students develop good study skills. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA.

EDRD 130 Improving Reading and Study Skills (3) Instruction and outside assignments designed to develop proficiency in the reading and study skills needed for success at the college level.

EDRD 205 Critical Thinking, Inferential Reading and Evaluative Writing (3) Students will improve critical thinking by studying the organization of thought and by applying critical reading to nonfiction and fiction and evaluative writing to journals, summary-reactions and an analytic paper.

EDRD 324 Secondary Content Area Literacy (2) Prerequisites: STEP 262, ET 201, EDF 366. Corequisites: ET 301, EDSE 360, STEP 363, your academic major methods class. Full admittance to PTEP required. Develop understanding of the interaction between literacy and content area instruction in the secondary school. Examine related instructional strategies with applications to specific content areas.

EDRD 340 Developing Language and Literacy of Middle Grade Students (2) Prerequisite: Provisional or Full Admittance to PTEP required. Corequisites: EDMG 420, EPSY 346. Investigate the writing/reading processes and their relationships, the development of language and literacy and how these understandings apply to the education of all students, including those with limited English proficiency.

EDRD 401 Practicum in Literacy (1-3) Open only by invitation to resident undergraduate students. Supervised professional activity in literacy (approximately two hours per day). A well-written paper must be filed with instructor before credit is given. S/U graded. Repeatable, maximum of three credits.

EDRD 410 Achieving Effective Instruction in Developmental Reading (3) Full admission to PTEP or certification at undergraduate level required. Teaching/learning strategies, reading materials, selection, lesson planning and organizing for instruction in reading across the total curriculum constitute the focus of the course.

EDRD 411 Elementary Reading Diagnosis and Individualization (3) Prerequisites: EDRD 410. Full admission to PTEP or certification at undergraduate level. Emphasizes reading diagnosis with elementary students leading to instruction through a variety of approaches toward the end of enabling teachers to select appropriate methods/materials.

EDRD 414 Literature for Children, Adolescents and Young Adults (3) Full admission to PTEP or certification at undergraduate level required. Consider interests and abilities governing the choice of literature from kindergarten through young adult years and survey this literature. Emphasize modern literature, use of literature in the curriculum and multiple responses to literature. Field experience included.

EDRD 419 Reading and Writing Development of Preschool/Primary Children (2) Acquaints students with current research on early literacy including factors in the environment that enhance or detract from literacy learning and the importance of parents and significant others in literacy development. Implications for primary reading and writing will be included.

EDRD 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours for one hour of credit in directed studies.) Repeatable, maximum concurrent enrollment is two times.

EDRD 423 Reading and Writing in the Content Areas (3) Full admission to PTEP or certification at the undergraduate level required. Develop understanding of cognitive affective needs of middle and secondary students in reading and writing to learn. Develop sensitivity to individual needs. Participate in related field experiences.

EDRD 425 Reading in the Content Areas (1) Consent of instructor. Majors only. Full admittance to PTEP required. Develop understanding of role physical education teacher plays in facilitating the literacy development of students. Examine effective ways to use reading and writing in physical education content.

EDRD 440 Integrating Language and Literature Across the Middle Grades Curriculum. (1) Prerequisite: EDRD 340. Corequisites: EDSE 411, EDMG 440, ET 301. Juniors or above. Provisional or full admittance to PTEP required. Investigate instructional strategies for developing literature and language learning across the integrated curriculum. Specifically the focus will be on the learning cycle using literature in the evaluation of process/product.

EDRD 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDRD 510 Achieving Effective Instruction in Developmental Reading (3) Full admission to PTEP or certification at undergraduate level required. Teaching/learning strategies, reading materials, selection, lesson planning and organizing for instruction in reading across the total curriculum constitute the focus of the course.

EDRD 511 Elementary Reading Diagnosis and Individualization (3) Prerequisites: EDRD 510 or equivalent. Full admission to PTEP or certification at undergraduate level. Course will emphasize diagnosis leading to instruction through a variety of approaches toward the end of enabling teachers to select appropriate methods/materials.

EDRD 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDRD 514 Literature for Children, Adolescents and Young Adults (3) Full admission to PTEP or certification at undergraduate level required. Consider interests and abilities governing the choice of literature from kindergarten through young adult years and survey this literature. Emphasize modern literature, use of literature in the curriculum and multiple responses to literature. Field experience included.

EDRD 519 Reading and Writing Development of Preschool/Primary Children (2) Acquaints students with current research on early literacy including factors in the environment that enhance or detract from literacy learning and the importance of parents and significant others in literacy development. Implications for primary reading and writing will be included.

EDRD 523 Reading and Writing in the Content Areas (3) Full admission to PTEP or certification at the undergraduate level required. Develop understanding of cognitive affective needs of middle and secondary students in reading and writing to learn. Develop sensitivity to individual needs. Participate in related field experiences.

EDRD 601 Practicum in Literacy (1-4) Written practicum proposal required before consent of instructor. Supervised professional activity in reading/writing (30 clock hours/credit) designed to enhance individual professional goals. Documentation must follow reading program guidelines. Repeatable, maximum of four credits.

EDRD 612 Reading in the Elementary School (3) Full admission to PTEP or certification at undergraduate level required. Study of the nature of reading instruction, K-6, as reflected by current research, teaching and evaluation methods and techniques, published and teacher prepared materials and effective classroom management.

EDRD 614 Literature for Children, Adolescents and Young Adults (3) Full admission to PTEP or certification at undergraduate level required. Consider locating and evaluating children's and young adult literature and methods of organizing, teaching and evaluating a literature program. Examine issues such as censorship, multicultural literature and style analysis. Mini-research study is required.

EDRD 615 Topical Seminar in Reading/Literacy (3) Advanced study, combined with individual inquiry, in Reading/Literacy education in the elementary and middle school. Addresses landmark research, analysis and synthesis of past/present trends and issues and scholarly pursuit of an individual topic. Repeatable, may be taken four times under different subtitles.

EDRD 617 Evaluation and Correction of Individual Reading Problems (4) Required laboratory arranged. Prerequisites: EDRD 612, EDRD 620 or equivalent. Develop an understanding of the educationally disabled reader/writer in elementary and secondary school. Explore diagnostic/instructional strategies.

EDRD 618 Literacy Instruction for Emerging Readers and Writers at Risk (3) Consent of instructor. Intense study and guided application of researched early intervention strategies for emerging readers and writers at risk. Students will design, implement and document personal application of concepts presented.

EDRD 620 Reading in the Middle and Secondary School (3) Introduction to reading skills and reading requirements in developmental reading and subject-matter classes in the middle and secondary school. Examine instructional strategies and evaluation procedures as reflected by research.

EDRD 621 Critical Reading and Thinking in Content Subjects (3) Full admission to PTEP or certification at undergraduate level required. Teaching subject matter to utilize fundamental reading abilities and knowledge acquisition strategies in the development of content concepts and to develop and utilize critical thinking skills in contemporary society.

EDRD 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDRD 637 Teaching Reading at the Adult Level (2) Consider problems of diagnosis, placement, strategies and materials for teaching remedial or developmental reading to college students or other adults in nonacademic settings. Field experience included.

EDRD 642 Teaching the Writing Process in Schools (3) Assist classroom teachers with children's writing process. Emphasis on: writing process; encouragement of process development; children's growth in writing process; and, recording, assessing and reporting student progress.

EDRD 645 Reading/Literacy Research (3) Study research procedures in reading/literacy and their application to education. Critique reading/literacy research, programs and practices. Develop and present group and/or individual projects and reports.

EDRD 670 Directing a School-Wide Reading/Writing Program (3) Prerequisites: EDRD 612 and EDRD 620 or equivalent. Seminar course intended to prepare reading teachers, specialists, coordinators and administrators for directing textbook adoption, curriculum development and issues, staff development, evaluation and supervision of reading/writing programs.

EDRD 692 Clinical Practicum and Internship: Elementary/Middle/Secondary (4) Prerequisites: EDRD 617 and consent of instructor. Provide appropriate literacy instruction for elementary/middle school/secondary students experiencing difficulty with reading/writing. Participation in weekly seminars regarding diagnostic/internship strategies, etc. May be completed at each level. S/U graded. Repeatable, up to one time.

EDRD 694 Reading Center Internship: Adult Reading, Literacy and/or Supervision (1-3) Prerequisite: EDRD 617. Consent of instructor. Separate internships in each area may be taken for a maximum of six credits. Experiences are individually defined. A minimum 45 hours of supervised work equals one (1) credit. S/U graded.

EDRD 699 Thesis (1-6) Optional for Master of Arts programs on recommendation of major advisor. Successful completion of a formal thesis paper and oral defense required. S/U graded. Repeatable, no limitations.

EDRD 701 Advanced Practicum in Literacy (1-4) Open only by invitation to resident doctoral students. Supervised professional activity in literacy. A well-written paper must be filed with the supervising instructor before credit is graded. Repeatable, maximum of eight credits.

EDRD 712 Psychology of Reading (3) Teach fundamental aspects of the complex skill of reading — linguistic, psychological, social and physiological — and on what is involved in learning to read. Students will consider perceptual, cognitive, linguistic and motivational factors in reading, writing, thinking and learning in general. Students will become acquainted with research on language, information theory, learning theory, the physiology of the eye and brain, psycholinguistics and many other topics.

EDRD 717 Advanced Diagnostic/Instructional Problems in Literacy Development (3) Laboratory required. Prerequisites: EDRD 612 or EDRD 620; EDRD 617, EDRD 692. Consent of instructor. Refine diagnostic/instructional skills through study of advanced diagnostics, instructional techniques and related research; assist in Center for Literacy Development.

EDRD 745 Topical Seminar in Reading/Literacy (2-4) Advanced study, combined with individual inquiry, in Reading/Literacy education in the elementary and middle school. Addresses landmark research, analysis and synthesis of past/present trends and issues and scholarly pursuit of an individual topic. Repeatable, may be taken four times, under different subtitles.

EDRD 750 The Contributing Professional in Reading (3) Designed for the emerging professional completing a doctoral degree in reading. Includes opportunities to examine and experience a variety of significant professional contributions that are encompassed within the reading of scholarly activities, organizational memberships and service roles for reading and literacy.

EDRD 795 Supervised Practicum in College Teaching (3) Experience in observation and supervised practice of college teaching for doctoral candidates planning to teach at college and university levels. Observations and experiences used as basis for analysis of learning experiences. S/U graded. Repeatable, maximum of nine credits.

EDRD 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Students must earn 4 hours of credit for doctoral dissertation research proposal in partial fulfillment of requirements for doctoral degree before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

EDRD 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Students must earn 12 hours of credit for the dissertation in partial fulfillment of requirements for the doctoral degree. S/U graded. Repeatable, no limitations.

EDSE - Special Education

EDSE 100 Understanding the Disabled (1) Designed to increase awareness of values about diversity as portrayed in film, develop understanding of how personal values influence behavior towards persons with differences. Overview of disabilities/differences among peoples.

EDSE 200 Human Exceptionality (3) Designed for non-education majors and is intended to assist in the acquisition of specific information regarding human exceptionality while clarifying and developing more positive attitudes and interactional patterns.

EDSE 300 Foundations and Communication in Special Education (3) Historical development and present status of educational programs for handicapped and gifted students. Focus will be on communication, human interaction, parent involvement, professionalism, finance, legalities and trends in special education.

EDSE 301 Development and Learning in Exceptional Students (3) Application of developmental and learning concepts to physical, cognitive, affective and language development of exceptional students. Emphasizes how maturational, environmental and hereditary aspects affect learning and development and their interrelationships.

EDSE 302 Educational Interventions for Meeting the Needs of Exceptional Individuals (3) Exploration of the total child approach to effective special education methodology, as related to instructional content and design, environmental factors, teacher/learner characteristics within cognitive, affective, physical and life management domains.

EDSE 303 Assessment of Exceptional Individuals (3) Explore issues in assessment related to exceptional children. Emphasis placed on principles, purposes and processes of assessment related to programming in special education.

EDSE 308 Workshop in Special Education (1-3) For beginning teachers and clinicians. Topics will include observation, techniques, programming for the handicapped, community relations, child development as related to exceptional children and evaluation of children for placement. Materials prescribed by specific workshop offered. Repeatable, under different subtitles.

EDSE 311 Including Exceptional Students in Middle Grades Classroom (1) Corequisites: EDMG 320, EDF 366. Juniors or above. Provisional or full admittance to PTEP required. Introductory course providing a rationale for including students with disabilities in Middle Grades classrooms. General information about special education such as identification, referral, terminology and issues in the field will be discussed.

EDSE 360 Adaptation, Modification, and Integration of Curriculum for the Secondary Exceptional Learner (3) Provides secondary classroom teacher information about special education, exceptional learners, and operational components in Special Education, and techniques for integration of special needs students including modification, adaptation, and specialized resources.

EDSE 400 Introduction to Students with Profound Needs (3) Prerequisites: EDSE 300, EDSE 301, EDSE 302, EDSE 303. Full admission to PTEP required. Content includes characteristics of students with profound needs, overview of motor, cognitive, communication and social functioning of these students; and current service delivery models.

EDSE 401 Parents of Children with Profound Needs (3) Prerequisite: EDSE 400. This course includes information on parents' needs relative to their child with profound needs. The focus is on family life cycle, coping issues and strategies for working with families.

EDSE 402 Assessment of Students with Profound Needs (3) Prerequisite: EDSE 400. This course emphasizes assessment techniques for individuals with profound needs; e.g., developmental, behavioral and environmental strategies. Use of transdisciplinary assessments and data based instruction also is emphasized.

EDSE 403 Methods of Teaching Students with Profound Needs Birth to 8 Years (3) Full admission to PTEP required. Learning strategies, methods and curricula for children who are severely/profoundly handicapped aged birth to 8 years is emphasized. A developmental approach is emphasized with consideration of age appropriateness and ultimate potential.

EDSE 404 Methods of Teaching the Severely/Profoundly Handicapped 9 to Adult (3) Prerequisite: EDSE 400. Full admission to PTEP or certification at undergraduate level required. Includes approaches to serving students with profound needs at the prevocational and vocational levels of instruction. Emphasis is on residential-employment competencies and transition from school to work.

EDSE 409 Exceptional Students in the Secondary Classroom (3) Provides information about handicapping conditions, including identification procedures and specific techniques and materials appropriate for mainstreaming students in secondary classrooms.

EDSE 410 Exceptional Students in the Regular Classroom (2) Required of students majoring in Fine Arts, Physical Education, Music Education and Vocational Education. Provides information on handicapped and gifted students, identification procedures and teaching techniques.

EDSE 411 Strategies for Teaching the Exceptional Student at the Middle Grade Level (2) Prerequisite: EDSE 311. Corequisites: EDRD 440, ET 301. Provisional or full admittance to PTEP required. Provides information on methods and techniques useful for adapting instruction and building support groups for students who are gifted or disabled at the middle grade level.

EDSE 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDSE 430 Exceptional Student in the Elementary Classroom (2) Prerequisites: EDF 366, ET 201. Corequisite: EPSY 346. Provisional or full admittance to PTEP required. This course is designed to provide Elementary level licensure candidates with information about the areas of special learners. This will include current research and practices related to issues such as inclusion. Students will be able to identify and adapt instruction for students with a wide range of disabilities. Field experience will be used extensively.

EDSE 440 Introduction to the Education of the Visually Handicapped (3) Non-majors only. Descriptions of visual handicaps, the history and background of formalized educational and rehabilitative services, basic medical and psychological aspects and an overview of the types of organizations serving the field.

EDSE 450 Introduction. Severe Needs: Hearing (3) History of education of severe needs: hearing population, anatomy of the hearing/speech mechanisms, causes and types hearing loss, psychological development of severe needs: hearing population, communication, educational and sociological problems.

EDSE 451 Basic Sign Language (4) Laboratory required. Consent of Instructor. Develop basic skills in manual communication of the hearing impaired through the use of sign language and fingerspelling. Fee required.

EDSE 500 Field of Special Education (3) Historical development and present status of individuals with disabilities and who are gifted. Focus on communication, parent involvement, finance, legal issues, ethics/professionalism and trends in special education.

EDSE 501 The Exceptional Learner (3) Basic issues in dynamics of learning and evaluation related to exceptionality. Emphasizes understanding learning and evaluation processes for purposes of individual and group educational planning.

EDSE 502 Communication, Collaboration and Consultation for Special Educators (3) Develop skills in intrapersonal/interpersonal dynamics in serving exceptional learners. Focus on communication, collaboration and consultation in the context of multicultural educational settings along a continuum of special education.

EDSE 503 Effective School Environments for Learners with Exceptional Needs (3) Study of sociocultural, eco-behavioral, political and economic components of effective/ineffective schools and the relationship to child, family, community and professionals. Roles of special educators and different service delivery models presented/analyzed.

EDSE 504 Transition Planning and Service Delivery for Students with Special Needs (3) Provide theoretical framework in transition process from school to adult life including historical/legal, planning, curricular, interagency, self-determination and parent/family aspects of transition.

EDSE 505 Assessment of Exceptional Individuals (3) Explore issues in assessment related to exceptional children. Emphasis placed on principles, purposes, and processes of assessment related to programming in special education.

EDSE 506 Seminar in Mainstreaming: Exceptional Students in the Regular Classroom (3) Survey course for non-special education graduate students concerning mainstreaming and accommodation of handicapped students in regular classrooms. Emphasis placed on solving classroom problems relating to graduate students' previous experiences with handicapped persons.

EDSE 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EDSE 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EDSE 520 Survey of Learners with Profound Needs (3) Includes an overview of persons with profound needs and their families including their characteristics and needs. Programmatic issues are also emphasized in relation to current research.

EDSE 521 Assessment of Learners with Profound Needs (3) Prerequisites: EDSE 400 or EDSE 520. Emphasizes the assessment — intervention — evaluation approach for learners with profound needs. The use of developmental/behavioral/ecological assessment approaches as well as transdisciplinary approaches are emphasized.

EDSE 522 Methods of Teaching Learners with Profound Needs: Birth to 8 Years (3) Prerequisite: EDSE 400 or EDSE 520. Full admission to PTEP or certification at undergraduate level required. Review methodological approaches to serving individuals with profound needs and their application; emphasizes teaching strategies, consultation techniques and accessing multi-agency resources.

EDSE 523 Methods of Teaching Learners with Profound Needs 9 to Adult (3) Prerequisite: EDSE 400 or EDSE 520. Full admission to PTEP or certification at undergraduate level required. Reviews teaching approaches to serve students with profound needs at the prevocational/vocational levels and application of approaches; emphasis on residential-employment competencies and transition from school to work.

EDSE 524 Seminar in Education of Learners with Profound Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Designed to synthesize experience and coursework in the area of educating students with profound needs. Emphases are on issues, research, classroom application and consultation.

EDSE 525 Research and Policy for Learners with Profound Needs (3) Includes research and policy relative to the learners with profound needs. Ethics of conducting research with these individuals, current research results and relevant public policy are the main foci.

EDSE 526 Practicum with the Severely/Profoundly Handicapped (3-12) Prerequisites: EDSE 521, EDSE 522, EDSE 523. Full admission to PTEP or certification at undergraduate level required. Entails supervised clinical experience with young and older individuals with profound handicaps. Daily supervision by a master teacher with overall supervision by UNC faculty is provided. S/U graded. Repeatable, maximum of 12 credits.

EDSE 530 Parent/Professional Partnerships (3) Prerequisite: EDSE 520. Provides theory and practices regarding understanding and helping parents deal with their young handicapped child. Issues regarding family coping, parent-professional partnerships and parent training are emphasized.

EDSE 531 Assessing Young Children with Special Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Focus on assessment tools and techniques for teacher evaluation of educational progress in young children with special needs. Plan educational programs with appropriate curricular content for individual children.

EDSE 533 Methods in Early Childhood Special Education (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Full admission to PTEP or certification at undergraduate level required. Provides skills in an assessment-intervention-evaluation programming philosophy. Different aspects of intervention and their common elements are covered. A developmental focus with consideration of child's functional needs is emphasized.

EDSE 534 Research and Policy in Early Childhood Special Education (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Review current policies related to the education of infants and young children with special needs. Familiarize students with research studies and classroom applications.

EDSE 535 Practicum in Early Childhood Special Education (3-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Full admission to PTEP or certification at undergraduate level required. Integrative field experience in practicum settings under college supervision and certified teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of competencies in EDSE. S/U graded. Repeatable, maximum of 12 credits.

EDSE 536 Early Intervention for Infants and Toddlers with Special Needs (3) Explores theoretical and practical approaches to early intervention for at-risk or disabled newborns, infants and toddlers. Focus on identification, program development and evaluation, instructional techniques and family involvement.

EDSE 540 Independent Living for Individuals with Visual Handicaps (1-2) Required laboratory arranged. Gain ability to understand the use of adapted materials and techniques in teaching independent living to individuals with visual handicaps. Emphasis given to recreational areas. Repeatable, maximum of 2 credits.

EDSE 542 Assessment and Methods for Teaching Students with Visual/Multiple Disabilities (3) Full admission to PTEP or certification at undergraduate level required. Discuss causes, characteristics, educational implications and instructional methods for student with visual/multiple disabilities. Learn effective teaming and collaborative planning strategies.

EDSE 543 Braille Codes and Formats (1-3) Required laboratory arranged. Study special braille codes: literacy, mathematical and scientific notation, music and foreign language. Textbook formats for braille, large type and recorded transcriptions. Techniques of teaching reading to students with visual handicaps. Repeatable, maximum of three credits.

EDSE 544 Technology for Students with Visual Handicaps (2) Learn to operate and to teach the use of technological devices including closed circuit television, optacon, abacus, electronic braille, computer speech, screen and braille adaptations. S/U graded.

EDSE 546 Principles of Orientation and Mobility (2) Independence in exploration of the environment as a life need. Techniques in developing orientation skills; pre-cane mobility instruction. Philosophy and history of cane instruction, dog guides and other methods of travel.

EDSE 547 Individual Instruction in Orientation and Mobility (4) Prerequisite: EDSE 546. Full admission to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. A study of methods involved in general navigation and environmental awareness relating to severe vision needs. Travel techniques are gained while working under simulated conditions. Repeatable, maximum of four credits.

EDSE 549 Rehabilitative Teaching of Individuals with Visual Handicaps (3) Full admission to PTEP or certification at undergraduate level required. Learn how rehabilitation of visually handicapped persons is accomplished through counseling, evaluation, higher education, coping skills, preparation for employment and independent living. Consider eye conditions and their implications for employment and discuss stereotyped ideas.

EDSE 551 American Sign Language (4) Laboratory required. Students will have the signing knowledge and ability to demonstrate visual discrimination, classifier description, time indicators, house and home, being/affective non-manual markers, transportation and community occupations. Fee required.

EDSE 552 Advanced Sign Language (4) Laboratory required. Prerequisite: EDSE 451. Designed to improve students' expressive and receptive skills in the use of finger spelling and Signing Exact English (SEE). Manual communication skills used in educational and social settings are emphasized. Focus on increasing sign vocabulary, understanding sign concepts, conversational skills and ability to teach and communicate using signing exact English. Fee required.

EDSE 553 American Sign Language 2 (3) Laboratory required. Prerequisite: EDSE 551 or equivalent. Provides opportunity to increase understanding of linguistic/cultural aspects of American Sign Language, increase receptive/expressive vocabularies, and recognize/apply appropriate grammatical rules using ASL. Fee required.

EDSE 560 Linguistically Diverse Students with Disabilities (3) Introduces students to instructional and assessment issues related to students with disabilities who come from culturally and linguistically diverse backgrounds.

EDSE 580 Nature and Needs of the Gifted and Talented (3) The definitions, characteristics and needs of the gifted and talented will be covered. Emphasis will be placed on the identification and assessment of these children.

EDSE 581 Teaching Strategies for the Gifted and Talented (3) Basic teaching strategies for use with the gifted and talented will be presented. Specific activities for cognitive, emotional and social development will also be included.

EDSE 582 Curriculum Models for the Gifted and Talented (3) Beyond teaching activities and strategies, specific curriculum models for use with the gifted and talented will be presented with specific attention on how to implement these models.

EDSE 583 History, Organization and Administration of Programs for the Gifted and Talented (3) A historical perspective of the education of the gifted and talented will lead to coverage of innovative program design and implementation for the gifted and talented.

EDSE 584 Practicum in Teaching the Gifted and Talented (1-12) Prerequisites: EDSE 580, EDSE 581, EDSE 582. Full admission to PTEP or certification at undergraduate level required. Emphasize actual teaching and facilitation of the gifted and talented in actual supervised teaching experiences. Repeatable, maximum of 12 credits.

EDSE 585 Facilitating Creativity in the Gifted and Talented Student (2) Exploration and application of several theoretical and research approaches to creativity and integrating creative thinking skills of gifted and talented students to their facilitators.

EDSE 586 Trends, Issues and Thinking Skills in Gifted Education (2) Prerequisite: EDSE 580. Exploration of issues in gifted and talented education and the application of critical thinking skills to issues in gifted and talented education.

EDSE 601 Supporting Special Students in the Mainstream (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 and EDSE 504. Full admission to PTEP or certification at undergraduate level required. Interventions for students with moderate academic difficulties in inclusive settings including (a) collaborating in providing direct service and (b) providing scaffolds to enable students to perform independently.

EDSE 602 Behavioral Disorders: Characteristics, Identification and Intervention (3) Examine typical characteristics associated with severe behavior problems and procedures for identification. Emphasis on development of appropriate intervention programs.

EDSE 603 Practicum with Moderate Needs Students (3-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admission to PTEP or licensure at the undergraduate level required. Consent of instructor. Supervised practice in programming for and teaching moderate needs students including assigned seminar topics. Additional seminar time required. S/U graded. Repeatable, maximum of 12 credits.

EDSE 606 Instructional Methods for Students with Special Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 and EDSE 504. Full admission to PTEP or certification at undergraduate level required. Teaches about major current techniques, methods, philosophies and trends in teaching communication, affective and cognitive needs students with moderate/severe disabilities.

EDSE 608 Case Studies with Students with Special Needs (3) Required laboratory arranged. Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 and EDSE 504. Consent of instructor. Applied experience in assessment and teaching of exceptional individuals. Work a minimum of 45 clock hours one-on-one with exceptional individual in school or clinical setting.

EDSE 609 Language Development: Disorders of Individuals with Special Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503 or consent of instructor. In-depth study of language and speech disorders, including assessment instruments and teaching strategies related to language and communication. Focuses on the language of students with special needs.

EDSE 610 Interventions for Students with Severe Affective Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503. Knowledge and classroom application of group and individual interventions for students with severe affective needs. Includes auxiliary services and parent interventions.

EDSE 611 Seminar in Severe Affective Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503 or consent of instructor. This course is designed to synthesize experience and coursework in the area of students with severe affective needs. Emphases are on issues, research and classroom application.

EDSE 612 Practicum with Students with Severe Affective Needs, Ages 5-21 (3-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admission to PTEP or licensure at the undergraduate level required. Consent of instructor. Integrative field experience in practicum settings under college supervisor and licensed teacher. Provides experiences of sufficient scope, intensity, and length to assure demonstration of all Teacher II affective program competencies. Additional seminar time required. S/U graded. Repeatable, maximum 12 credits.

EDSE 620 Psycho-Social Aspects of Students with Severe Cognitive Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. In-depth study of sociological and psychological aspects of students with severe cognitive needs. Focuses on issues relative to life care and treatment of the cognitive needs student.

EDSE 621 Seminar in Severe Cognitive Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. This course is designed to synthesize experience and coursework in the education of students with severe cognitive needs. Emphases are on issues, research and classroom application.

EDSE 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EDSE 623 Practicum with Students with Severe Cognitive Needs, Ages 5-21 (3-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admission to PTEP or licensure at undergraduate level required. Consent of major advisor. Integrative field experience in practicum settings under college supervisor and licensed teacher. Provides experiences of sufficient scope, intensity, and length to assure demonstration of all Teacher II cognitive program competencies. Additional seminar time required. S/U graded. Repeatable, maximum 12 credits.

EDSE 630 Seminar in Severe Communication Needs (3) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. This course is designed to synthesize experience and coursework in the education of the severe communication needs. Emphases are on issues, research and classroom application.

EDSE 631 Practicum with Students with Severe Communication Needs: Ages 5-21 (3-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502, EDSE 503, EDSE 504. Full admission to PTEP or licensure at undergraduate level required. Consent of instructor. Integrative field experience in practicum settings under college supervisor and licensed teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of all Teacher II communication program competencies. Additional seminar time required. S/U graded. Repeatable, maximum 12 credits.

EDSE 632 Practicum with Learning Disabled Students, Ages 5-12 (1-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. Full admission to PTEP or certification at undergraduate level required. Consent of major advisor required. Integrative field experience in practicum settings under college supervisor and certificated teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of all Teacher II communication program competencies. S/U graded. Repeatable, maximum of 12 credits.

EDSE 633 Practicum with Learning Disabled Students, Ages 13-21 (1-12) Prerequisites: EDSE 500, EDSE 501, EDSE 502 and EDSE 503. Full admission to PTEP or certification at undergraduate level required. Consent of major advisor required. Integrative field experience in practicum settings under college supervisor and certificated teacher. Provides experiences of sufficient scope, intensity and length to assure demonstration of all Teacher II communication program competencies. S/U graded. Repeatable, maximum of 12 credits.

EDSE 641 Medical and Educational Implications of Visual Handicaps (1-3) Anatomy/physiology of the eye, medical and educational assessment of low vision and functional implications of various eye conditions. Techniques to develop use of functional vision. Repeatable, maximum of three credits.

EDSE 642 Advanced Seminar in Education of Students with Visual Handicaps (3) Role of teacher of students with visual handicaps, assessments, compensatory skill methodology, IEP/IFSP development, appropriate placements, sourcing materials and equipment, administrative duties, consulting techniques and volunteer coordination.

EDSE 643 Psychosocial Needs of Individuals with Visual Handicaps (2) Study the psychosocial implications of visual impairments, sources of self-esteem, the adjusting process and strategies for meeting the blindness-related counseling needs of individuals with visual handicaps and their parents.

EDSE 644 Practicum in Education of Students with Visual Handicaps, K-12 (2-12) Prerequisites: EDSE 542, EDSE 543, EDSE 544, EDSE 546, EDSE 641 and EDSE 643. Full admission to PTEP or certification at undergraduate level required. Consent of instructor. Supervised teaching experience with students with visual handicaps, K-12, planning and implementing lessons, preparing materials, participating in staffings, IEP/IFSP development and parent conferences. Repeatable, maximum of 12 credits.

EDSE 646 Practicum in Rehabilitative Teaching of Individuals with Visual Handicaps, K-12 (6-12) Prerequisites: EDSE 543, EDSE 546, EDSE 549, EDSE 641 and EDSE 643. Consent of instructor. Supervised teaching experience with individuals with visual handicaps, including development and implementation of strategies for teaching communication, personal and home management, social and recreational skills: home- and/or center-based. Repeatable, maximum of 12 credits.

EDSE 647 Applied Methods in Orientation and Mobility (2) Full admission to PTEP or certification at undergraduate level required. Weekly seminar explores methods and strategies for teaching independent travel techniques to students with visual and other handicaps. Student provides individualized instruction to visually impaired person with faculty supervision.

EDSE 648 Practicum in Orientation and Mobility (9) Full admission to PTEP or certification at undergraduate level required. Consent of major advisor required. Supervised teaching experience with both blind and low vision individuals in orientation and mobility. Observation of varied programs; e.g., resource room itinerant plan, residential school and rehabilitation settings.

EDSE 652 Speechreading, Auditory Training and Amplification (3) Prerequisites: CMDS 370, EDSE 450. Certification at undergraduate level required. Study amplification; personal and group, components, evaluation, maintenance and application to auditory training, speech and speech-reading. Develop receptive language through auditory and visual channels for the hearing impaired.

EDSE 653 Speech, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admission to PTEP or certification at undergraduate level required. Develop competencies to teach speech to meet severe hearing needs, including appropriate methods, teaching sequences, strategies, techniques and materials; develop a speech program, assess speech behaviors of severe hearing needs persons.

EDSE 654 Language, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admission to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. Develop competencies to assess, teach and evaluate language for severe hearing needs persons. Select methods, materials and techniques appropriate for each level; develop comprehensive expressive/receptive language program.

EDSE 655 Reading, Severe Needs: Hearing (3) Prerequisite: EDSE 450. Full admission to PTEP or certification at undergraduate level required. Emphasize relationship of cognition/language/reading for severe hearing needs. Learn process, approaches, methods, techniques, appropriate materials and assessment of reading behaviors of severe hearing needs person.

EDSE 656 Methods of Teaching Content: Severe Needs Hearing (3) Prerequisite: EDSE 450. Full admission to PTEP or certification at undergraduate level required. Consent of instructor. Required laboratory arranged. Study design of curriculum. Plan, implement and evaluate learning experiences in content subject areas and create and adapt materials appropriate for the severe hearing needs person.

EDSE 657 Practicum, Severe Needs: Hearing (6-12) Prerequisites: EDSE 653, EDSE 654 and EDSE 656. Full admission to PTEP or certification at undergraduate level required. Consent of major advisor required. Individual observation and supervised practice in the education of the severe hearing needs person, K-12. Repeatable, maximum of 12 credits.

EDSE 680 Administration and Supervision of Special Education (3) The role of various administrative personnel is studied from a situational leadership perspective. Responsibilities of the special education administrator are examined and differences in role will be defined in terms of size of agency. The course is a blend of current theory and practice of administrators of various agencies serving exceptional children.

EDSE 681 Administrative Planning and Program Evaluation in Special Education (3) Prerequisite: EDSE 603. To prepare special education administrators to conduct special education program evaluation, to organize data derived from such evaluations for decision making purposes, to better understand special education resource utilization and to be able to integrate these activities with other special education administrative functions.

EDSE 718 Advanced Seminar in Education of Students with Hearing and/or Visual Handicaps (3) Investigation of the issues and trends in education of infants, children and youth with hearing and/or visual disabilities: focus on research, curriculum, instructional strategies and other administrative concerns.

EDSE 720 Professional Development (1) Consent of instructor. Basic information about doctoral program in Division of Special Education. Students learn about the program, professional activities of professors and opportunities available within the division. S/U graded.

EDSE 721 Theoretical Foundations of Special Education I (3) In depth study of special education's enrichment by conceptions of the nature of exceptionalities, learning and instruction that have and are emerging from biological and sociocultural constructivism, phenomenology and holism.

EDSE 722 Theoretical Foundations of Special Education II (3) Exploration of fundamental theories in special education and human disability, emphasizing reductionistic theories. Topics include applied behavior analysis, cognitive sciences, selected bio-behavioral perspectives, etc.

EDSE 723 Seminar in Facilitating Personal and Professional Development in Special Education I (3) Assist learners with development of skills and knowledge necessary to function as special educators who effectively interact with diverse students, teachers, administrators and parents.

EDSE 724 Seminar in Facilitating Personal and Professional Development in Special Education II (3) Prerequisite: EDSE 723. Builds on concepts, attitudes and knowledge developed in EDSE 723. It is designed for special educators to apply skills of effective interaction with diverse students, educators and parents.

EDSE 725 Professional Readings in Special Education (1) Designed to foster the skills that enable students to read thoroughly, interpretatively and integratively as a precursor for life-long learning. The content will change each semester as students and faculty jointly select the readings. S/U graded. Repeatable, under different subtitles for a maximum of four credits.

EDSE 726 Seminar in Low Prevalence Exceptionalities (3) Consent of instructor. Issues in education of students who are deaf, hard-of-hearing, blind, visually impaired, deafblind or who have autism, traumatic brain injury or severe exceptionalities. Research, instructional strategies, environments and administrative concerns.

EDSE 727 Seminar in High Prevalence Exceptionalities (3) Investigation of the issues and trends in education of students who are learning disabled, emotionally disturbed, mentally retarded and gifted and talented. Focus on research, curriculum and instructional strategies.

EDSE 728 Seminar in Professional Writing (3) To develop an understanding of the importance of and the procedures involved in professional writing, with emphasis on writing grant applications for the United States Department of Education.

EDSE 729 Apprenticeship in Special Education (1-4) Consent of instructor. Jointly defined experiences on campus in intensive mentor/apprenticeship project; participating in all aspects of inquiry, administration, or university teaching from planning through dissemination/publication. Repeatable, under different subtitles for a maximum of 12 credits.

EDSE 730 Externship in Special Education (1-12) Consent of instructor. Supervised program of participation in a variety of settings outside the University that serve exceptional persons. The externship requires an individually arranged field experience. Repeatable, under different subtitles for a maximum of 12 credits.

EDSE 731 Topical Seminar in Special Education (3) Course content differs to ensure flexibility promoting cutting-edge knowledge. Faculty share expertise in-depth. Students select from offerings to individualize program and utilize wide variety of methods of inquiry. Repeatable, maximum 15 credits, under different subtitles.

EDSE 797 Doctoral Proposal Research (1-4) Permission of major advisor. Required of all doctoral students. A student must earn 4 hours of credits as a partial fulfillment of requirements for all doctoral degrees before admission to candidacy. S/U graded. Repeatable, maximum of four credits.

EDSE 799 Doctoral Dissertation (1-12) Permission of major advisor. Required of all doctoral candidates. A student must earn 12 hours of credit for the dissertation as a partial fulfillment of requirements for any doctoral. S/U graded. Repeatable, no limitations.

EED - English Education

EED 301 Tutoring Strategies for Composition (1-2) Sophomores or above. Consent of instructor. After training in tutoring strategies, participants will spend 30 class hours per credit assisting in a composition class or writing laboratory to prepare for clinical and student teaching. Repeatable, maximum of four credits, under different subtitles.

EED 341 Methods and Materials for Teaching Language and Composition in the Secondary Schools (3) Full admission to PTEP or certification at undergraduate level required. Prerequisite to student teaching. Methods and materials for teaching language and composition in the secondary schools. Teaching techniques are a point of emphasis.

EED 402 Methods and Materials for Teaching Literature in Secondary Schools (3) Full admission to PTEP or certification at undergraduate level required. Prerequisite to student teaching. Selection of literature, use of media, curriculum and classroom organization, testing, evaluation and materials in a secondary school program.

EED 406 Literature for Young Adults (3) Reading material for young adults. Attention concentrated on junior novels, junior biographies, their authors and on trends and evaluation standards.

EED 541 Methods and Materials for Teaching Language and Composition in the Secondary School (3) Full admission to PTEP or certification at undergraduate level required. Prerequisite to student teaching. Methods and materials for teaching language and composition in the secondary schools. Teaching techniques are a point of emphasis.

EED 606 Seminar In Literature for Young Adults (3) PTEP or certification at undergraduate level required. Books written for young adults, with emphasis upon junior novels and biographies. Consideration of reading guidance based upon student interests and needs. Development of criteria for evaluating literature for young adults.

EED 754 Supervised Teaching of English: Literature and Composition (2-6) Student will prepare and teach classes under the supervision of instructors chosen or designated in order to give practice in and to evaluate teaching.

ELPS - Educational Leadership and Policy Studies

ELPS 385 Law and the Classroom Teacher (2) Admission to PTEP required. Develop basic understanding of legal structure of American education. Emphasizes teachers' legal rights, responsibilities and liabilities; employment issues; students' rights and duties; and legal issues in discipline.

ELPS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ELPS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ELPS 601 Leadership Development Through Inquiry (3) Experiences help students understand the nature of leadership and the importance inquiry plays in creating, using, and acquiring knowledge.

ELPS 603 Shaping Organizations: Management and Leadership in Education (5) Prerequisite: ELPS 601 or consent of instructor. Introduces students to qualities of effective leadership and management; organizational skill development; organizational behavior; and strategic planning in organizations.

ELPS 604 Understanding People: Professional Development and Educational Leadership (3) Prerequisite: ELPS 601 or consent of instructor. The fundamentals of working with people in educational organizations is reviewed. Emphasis on adult learning, communications and working in teams, and personnel issues.

ELPS 605 External Environments: Social, Political, and Economic Influences in Educational Leadership (5) Prerequisite: ELPS 601 or consent of instructor. External pressures on educational policies and operations, including demographics, diversity, governance, legislation, litigation, partnerships, integrated service delivery for children and families, sources of revenue, and accountability.

ELPS 606 Internship in Educational Leadership (1-9) Advisor approval required. Involves part- or full-time leadership assignments in educational organizations. S/U graded. Unlimited repeatability.

ELPS 608 Issues in Educational Leadership: Implications for Practice (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Multiple perspectives will be used to review and analyze critical past issues and current educational dilemmas. Focus on solution strategies and their impact on practice.

ELPS 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ELPS 650 School Finance and Budgeting (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examines economics and politics of education, revenues for school systems, principles of taxation, conflicts between equality and efficient goals and local state and federal policies for education.

ELPS 651 School Business Management (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Develops understanding of problems and procedures of such management functions as transportation, property control, food services, facility maintenance, purchasing, insurance and investments. Provisions for applications of technology to financial management.

ELPS 652 Human Resources in Higher Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. The course focuses on understanding Human Resource Management (HRM) as an energy source for shaping institutions. Emphasis is on the practical application of achieving change through personnel and compensation administration.

ELPS 653 Finance and Resource Management in Higher Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Analyze issues of financing public and private higher education; examine alternative financing sources and methods; develop skill in resource allocation and management.

ELPS 654 Supervision of Curricular and Instructional Programs (5) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examine the school leader's role in supervising the teaching and learning process. Focus on curriculum development, instructional improvement, and developing capacity of others to become curricular and instructional leaders.

ELPS 655 Seminar in Learning in Adulthood (3) A comprehensive overview of learning in adulthood. Emphasis on context, the participants, learning process and the relevance for practice in educational leadership.

ELPS 657 Families, Communities and Schools (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Focus on the role of the educational leader in shaping and maintaining mutually supportive relationships between schools and their environment.

ELPS 658 Human Resource Development in P-12 Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Focuses on the role of the P-12 personnel administrator. Topics include contract management, recruitment, selection, collective bargaining, and performance appraisal.

ELPS 660 Law and the Administrator (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting organization and administration of public and private school systems.

ELPS 661 Law and Higher Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Relate statutory provisions, court decisions, common law principles and constitutional requirements to legal problems affecting public and private higher education institutions and systems.

ELPS 662 Design and Delivery of Professional Development (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Explores the planning, delivery, and evaluation of professional development activities for adults. Emphasizes practical aspects such as needs identification and learning transfer. Course outcomes include creating a professional development program.

ELPS 663 Developing Grants and Contracts (3) Prerequisite: ELPS 601 or consent of instructor. Identifying various funding sources; understanding the explicit and implicit aspects of proposal writing for public and private agencies, proposal review processes, and elements of project operations.

ELPS 664 Organization and Administration of Community Colleges (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Analyze the purposes and governance of community college institutions and systems, examine structure and functions and study major administrative problems.

ELPS 665 Policy Analysis and Development (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Study standard techniques for analyzing, evaluating and developing policies for educational systems and organizations, with special attention to contemporary policy issues.

ELPS 666 Planning and Change in Education (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Understand planning and change theories; strategic planning development; particular emphasis on restructuring educational environments.

ELPS 668 Higher Education in the United States (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Organization and leadership of higher education from department, campus wide, state and federal levels is examined by tracing historical antecedents and using contemporary research findings, models and theories.

ELPS 669 College and University Curriculum (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Develop an understanding of college and university curriculum by examining undergraduate and graduate program structures for liberal arts and professional programs, curriculum development processes, and current issues impacting curriculum.

ELPS 670 The Principals: Leadership at the School Site Level (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Examine leadership and management issues of building principals, instructional leadership and problems facing principals at the site level.

ELPS 695 Practicum in Educational Leadership (1-3) Consent of instructor. Enables students to engage in a particular task/activity in educational leadership in one or more field sites. S/U graded. Unlimited repeatability.

ELPS 711 Advanced Theories for Changing Organizations (3) Prerequisites: ELPS 603 and ELPS 666 or equivalent. Consent of instructor. Advanced theories of organizations; basic research on organizations and leader behavior; primary research about and models for facilitating change are combined to analyze, plan and evaluate major organizational change processes.

ELPS 747 Leadership at the School District Level (3) Prerequisites: ELPS 601, ELPS 603, ELPS 604, ELPS 605 or consent of instructor. Study the leadership responsibilities of school district administrators, with special emphasis on the knowledge, skills and values needed by effective superintendents.

ELPS 751 Doctoral Core I (6) Consent of instructor. Team-taught seminar focusing on teambuilding and group processing, inquiry and reflective practice, and moral and ethical dimensions of leadership. Extensive attention given to developing scholarly writing skills.

ELPS 752 Doctoral Core II (6) Prerequisite: ELPS 751 or consent of instructor. Continued doctoral study in educational leadership and policy. Team-taught seminar exploring the nature of organizations, leadership and policy through readings, group discussions, and a collaborative research project.

ELPS 797 Doctoral Proposal Research (1-4) Prerequisites: ELPS 751, ELPS 752. To enable advanced doctoral students to learn the essential elements of effective research proposals and to develop analytic skills needed to critique other research. Repeatable, maximum of four credits. S/U Graded.

ELPS 799 Doctoral Dissertation in Educational Leadership and Policy Studies (12) Prerequisite: ELPS 797. Approval of research advisor required. Complete research of a major problem in educational leadership and policy. Must earn total of 12 hours of credit. S/U graded. Repeatable.

ENG - English

ENG 122 College Composition (3) Introduces different modes of expository writing with an extensive review of mechanics. Emphasis on full and logical development of thesis, use of both personal and academic stylistic levels and clear organization.

ENG 123 College Research Paper (3) Prerequisite: ENG 122. Instruction in diction, style, logical analysis, research techniques and organization of college-level research papers.

ENG 131 Introduction to Literature (3) The study of selected poetry, plays and works of fiction with an emphasis on developing skills in analysis, interpretation and critical thinking.

ENG 138 Modernism in Literature (3) Study movements and ideas (e.g. Freudianism, existentialism, magic realism, postmodernism) in twentieth-century American and/or British literature.

ENG 203 The Essay (3) Prerequisites: ENG 122, ENG 123 or equivalent. An intermediate writing course treating audience, strategies and cohesion. In-depth study of the essay through various modes, disciplines (arts, sciences) and periods will complement student compositions.

ENG 210 Studies in Literature (3) Study of various themes, topics, genres or special problems in literature. Repeatable, maximum nine credits under different subtitles.

ENG 219 Traditional and Modern Grammars (3) Describes standard English as treated by traditional grammarians, structuralists and transformationalists. Topics range from word classes, tense and voice, to operations and processes underlying modern grammar.

ENG 223 Writing with Sources (3) Prerequisite: ENG 122. This intermediate, interdisciplinary course develops skills in critical thinking, in the use of source materials and in creating longer, more complicated pieces of writing than those required in ENG 122.

ENG 225 Communications on a Theme (3) Prerequisite: ENG 122. Topics for writing chosen from ideas of historical influence and/or contemporary problems. Repeatable, may be taken two times under different subtitles.

ENG 227 Technical Writing (3) Prerequisite: ENG 122. Analysis of sentence structure, order of presentation and use of illustration in writing essential for the technician, engineer, scientist, emphasis on arranging and stating information clearly.

ENG 231 Great Writers in England or America (3) The in-depth study of one English or American writer not featured elsewhere. Subject of the course determined by subtitle. Repeatable, maximum nine credits under different subtitles.

ENG 235 World in Literature (3) Variable content course studying literature of countries predominantly other than England or America. Readings may be thematic, comparative, geographic, generic. Repeatable, maximum nine credits under different subtitles.

ENG 236 Ethnic American Literature (3) Study of the ethnic experience in America as it has been reflected in the works of outstanding ethnic writers within the American literary tradition.

ENG 238 Introduction to Folklore (3) The study of tales, legends and other lore passed on orally or by customary example in groups bound by common background or experience. Subtitle may indicate specific group or groups. Repeatable, maximum six credits under different subtitles.

ENG 239 Topics in Women's Literature (3) Investigation, from a feminist perspective, of writing by or about women. Figures, nationalities, genres and periods will vary with subtitles. Repeatable, maximum nine credits under different subtitles.

ENG 240 Introduction to Creative Writing (3) Introduction to techniques in writing fiction, poetry, or in theatre, film and television. Repeatable, up to nine credits, under different subtitles.

ENG 245 Critical Approaches to Literature (3) Study of literary works through a variety of approaches such as sociological, psychological, deconstructionist and other contemporary theories.

ENG 260 Masterpieces of English Literature (3) Prerequisite: ENG 122. Study of English literature from the beginning to the present. Emphasizes the appreciation, through close reading, of selected major works and the contribution of the literature to contemporary life and thought.

ENG 261 Masterpieces of American Literature (3) Prerequisite: ENG 122. Study of American literature from the beginning to the present. Emphasizes the appreciation, through close reading, of selected major works and the contribution of the literature to contemporary life and thought.

ENG 262 Masterpieces of World Literature (3) Study of the riches of world literature in translation. Course content will be designated by one of the following subtitles: Continental Masterpieces, Masterpieces of Russian Literature, Masterpieces of the Orient. Repeatable, maximum nine credits under different subtitles.

ENG 308 Workshop in English (1-9) A series of specialized English topics. Subject matter may deal with any area of English or English Education. Subtitle will indicate course content. Repeatable, maximum nine credits under different subtitles.

ENG 310 Major Writers of English Literature (3) In-depth study of the works of a single writer. Repeatable, maximum nine credits under different subtitles.

ENG 319 Advanced Expository Techniques (3) Prerequisites: ENG 122, ENG 219. Reading, writing and formal analysis of various prose pieces and study of logical fallacies in ancient and modern political writing.

ENG 325 Studies in Fantasy and Science Fiction (3) Different approaches to the literature of wonder, including concentration on a particular writer, a theme such as women in science fiction, or a historical study of the genre.

ENG 335 World Literature By and About Women (3) The contributions of important early and modern women writers. Novels, plays and poetry or short stories of world writers will be studied.

ENG 340 Creative Writing - Advanced (3) Prerequisite: ENG 240 in the appropriate subtitle or equivalent. Subtitles: Poetry, Fiction, Drama. Repeatable, maximum nine credits under different subtitles.

ENG 351 Medieval Literature (3) Works from the Old and Middle English periods. Selections such as anonymous Anglo-Saxon lyrics, Beowulf, Chaucer, Sir Gawain and the Green Knight and Morte D'Arthur.

ENG 352 Renaissance Literature (3) English poetry and prose of the Renaissance. Selections from such authors as Spenser, Jonson, Marlowe, Bacon, the Metaphysical poets, Milton and the chroniclers.

ENG 353 Restoration and Eighteenth Century (3) Selected authors (Dryden, Pope, Swift, Defoe, Fielding, Boswell, Johnson, Goldsmith, Sheridan) and genres (comic drama, satiric poetry, the novel, biography) representative of literature in England from 1660 to 1800.

ENG 354 The Romantic Movement (3) A study of the development of English Romanticism through the works of such writers as Blake, Wordsworth, Coleridge, Byron, Shelley and Keats.

ENG 355 Victorian Prose and Poetry (3) A study of the major Victorian writers and their themes. Special emphasis upon intellectual currents of the 19th century as reflected in the poetry and prose.

ENG 356 Twentieth Century English Literature (3) Selected reading from authors such as Shaw, Joyce, Woolf, Yeats, Thomas, Lessing and Fowles to bring out themes and intellectual currents of the present century.

ENG 371 American Literature through the 19th Century (3) Careful study of major writers and literary movements from the Puritan period up to 1900.

ENG 372 American Literature of the 20th Century (3) Careful study of major writers and literary movements from 1900 to the present.

ENG 402 The Short Story (3) Analysis of modern short stories.

ENG 403 Techniques of the Novel (3) A study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

ENG 404 Modern Literature About Childhood and Adolescence (3) The concept of childhood and adolescence in the writing of 20th century British and American authors, with emphasis on the ideas of innocence and initiation.

ENG 406 Advanced Studies in Drama (3) Study of a variety of dramatists, historical periods or special problems in drama; may focus attention on specific dramatist or sub-genre.

ENG 407 Advanced Studies in Poetry (3) Study of one or more poets or special problems in poetry; may focus attention on a specific poet or sub-genre.

ENG 409 Advanced Topics in Literature (3) Topics may focus on themes, literary theory, genres, historical periods or selected writers.

ENG 414 Greek and Comparative Mythology (3) Greek myths as an important source of literary allusion and imagery and as a comparative vehicle to show what is common to all mythologies.

ENG 418 Advanced Topics in Linguistics (3) An investigation of selected topics of current linguistic interest. Topics such as syntax, stylistics, semantics and sociolinguistics are explored. Repeatable, maximum six credits under different subtitles.

ENG 419 Language and the History of English (3) Prerequisite: ENG 219. A survey of general linguistics as applied to the history of the English language. Includes vocabulary and dictionary study, regional and social dialects, semantics and pragmatics, childhood acquisition of language.

ENG 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ENG 430 Advanced Studies in World Literature (3) An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, maximum nine credits under different subtitles.

ENG 441 Colloquium in Literature (3) One great work of literature or a small group of such masterpieces that are closely related either in form or idea. Repeatable, maximum nine credits under different subtitles.

ENG 503 Techniques of the Novel (3) A study of seven or eight important English and American novels to show different techniques used to reveal the novelists' artistic insight.

ENG 506 Advanced Studies in Drama (3) Studies of a variety of dramatists, historical period or problems in drama; may focus attention on a specific dramatist or sub-genre. Repeatable, under different subtitles.

ENG 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ENG 510 Advanced Placement Program-English (1-3) Consent of Instructor. A course designed to provide content and pedagogical information related to the teaching of writing and literature in the secondary school English advanced placement program. S/U graded. Unlimited repeatability.

ENG 513 Professional Renewal (1-4) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ENG 514 Greek and Comparative Mythology (3) Greek myths as an important source of literary allusion and imagery and as a comparative vehicle to show what is common to all mythologies.

ENG 515 Colorado Writing Project: Teacher Research Design (3) Corequisite ENG 516. Consent of Instructor. Course offers experienced teachers of writing the opportunity to do scholarly research in writing pedagogy, analyzing various research designs and project results.

ENG 516 Colorado Writing Project: The Teacher as a Researcher (3) Corequisite ENG 515. Consent of Instructor. Course offers the experienced teachers of writing the opportunity to develop their own research project, carry it out, evaluate it and present the results both orally and in writing.

ENG 530 Advanced Studies in World Literature (3) An investigation of a theme, form or problem that cuts across periods and nationalities. Repeatable, under different subtitles.

ENG 535 World Literature By and About Women (3) The contributions of important early and modern women writers. Novels, plays and poetry or short stories of world writers will be studied.

ENG 540 Professional Writing (3) Professional-level writing course in various modes of expression according to subtitle designation, such as poetry, exposition, fiction, etc. Repeatable, up to nine credits, under different subtitles.

ENG 594 Practicum in the Teaching of College Composition (4) Consent of instructor. Train new teaching assistants in Department of English to teach college level composition to UNC students.

ENG 600 Introduction to Graduate Study (3) An orientation to graduate study in general and the nature and methods of research in particular. Should be taken during the first semester of graduate work.

ENG 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ENG 623 Studies in Old English (3) Seminars in Germanic and Christian lyrics, elegies, historic poetry; selected prose; linguistic studies, including grammar, phonology, vocabulary, especially for West Saxon dialect; backgrounds of Anglo-Saxon culture. Repeatable, maximum nine credits under different subtitles.

ENG 624 Studies in Middle English (3) Seminars in Chaucer's works; non-Chaucerian drama, romance, ballads, lyrics, selected prose; linguistic studies, including grammar, phonology, emphasis on East Midland dialect; medieval culture. Repeatable, maximum nine credits under different subtitles.

ENG 625 Studies in the Renaissance (3) Seminars in various ideas of the period, genres (drama, prose and poetry) and representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 626 Studies in Restoration and 18th Century (3) Seminars in various ideas of the period, genres (criticism, drama, fiction and poetry) and representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 627 Studies in the Romantic Period (3) Seminars in the origin, purpose, nature of the Romantic Movement, focusing on two or more representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 628 Studies in the Victorian Period (3) Seminars in various genres (criticism, drama, fiction and poetry), representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 629 Studies in 20th Century British Literature (3) Seminars in various ideas of the period, genres (criticism, drama, fiction and poetry) and representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 630 Studies in American Literature (Beginnings to Civil War) (3) Seminars in various genres (criticism, drama, prose and poetry), ideas and representative authors. Repeatable, maximum nine credits under different subtitles.

ENG 631 Studies in American Literature (Civil War to W.W.I) (3) Seminars in various genres (criticism, drama, fiction and poetry), ideas and representative authors during the late 19th century and early 20th century. Repeatable, maximum nine credits under different subtitles.

ENG 632 Studies in American Literature (W.W.I to the Present) (3) Seminars in various genres (criticism, drama, fiction and poetry), ideas and representative authors during the mid 20th century. Repeatable, maximum nine credits under different subtitles.

ENG 633 Studies in Linguistics (3) Seminars in various topics ranging from the evolution of English from its beginnings to dialectology, semantics, stylistics and psycholinguistics. Repeatable, maximum nine credits under different subtitles.

ENG 635 Studies in World Fiction (3) Seminars in various short stories and novels in translation to illustrate a generic or ideological approach to fiction beyond Britain and the United States. Repeatable, maximum nine credits under different subtitles.

ENG 636 Studies in World Poetry (3) Seminars in various poets and aspects of poetry in translation to illustrate a generic, ideological or cultural approach to poetry beyond Britain and the United States. Repeatable, maximum nine credits under different subtitles.

ENG 637 Studies in World Drama (3) Seminars in various plays in translation to illustrate a generic or ideological approach to drama beyond Britain and the United States. Repeatable, maximum nine credits under different subtitles.

ENG 638 Studies in Literary Criticism (3) Seminars in various schools of criticism from the Greeks through the 20th century, combined with the practical application of the theories to works of literature. Repeatable, maximum nine credits under different subtitles.

ENG 639 Colloquium in Literature (3) Seminars in various topics (e.g., the tragic hero, alienation, the experimental novel) related in form and/or idea and drawn from American, British or world literature in translation. Repeatable, maximum nine credits under different subtitles.

ENG 692 Teaching Internship (3) Consent of Instructor. Course offers community college teaching experience to English M.A. students. Interns teach a course at an appropriate community college, receive monitoring, and provide a portfolio describing the teaching experience. Repeatable, may be taken two times.

ENG 699 Thesis/Creative Project (1-6) Proposals must be approved by the student's major advisor and the Dean of the Graduate School. S/U graded. Repeatable, no limitations.

ENST - Environmental Studies

ENST 100 Introduction to Environmental Studies (3) Explore the nature of environmental problems and gain an overall understanding of the complexity of these problems.

ENST 205 Environment, Politics and Law (2) Analysis of the causes and proposed solutions of environmental problems and of environmental issues and their political resolution.

ENST 215 Human Behavior and Environment

(2) Prerequisite: ENST 100 recommended. Examine the interrelationship between human behavior and the environment. Review personal, social and structural dimensions of everyday life as they relate to the environment. Understand environmental problems and consider alternative behavior models.

ENST 225 Energy and the Environment (3)

Study past, present and future methods of energy production and limitations imposed by the laws of physics. Discuss applications to transportation, home and industry. Taught by the Physics department.

ENST 235 Chemistry and the Environment (2)

The cause and effect of nuclear waste, pesticides, air pollution, water pollution, toxic waste, food additives and alternative energy sources from a chemical perspective.

ENST 245 Nuclear, Solar and Alternative Power (3)

Basic principles and applications of nuclear and solar power conversion, including fission, fusion and solar-to-electric. Solar heating of businesses and residences. Alternative power possibilities. Taught by the Physics department.

ENST 247 Politics of the Nuclear Age (2)

An investigation into the political, social, economic and military implications of nuclear power and weapons, plus the interrelations between the two. Topics will include the Manhattan Project, the Cold War mentality and the efforts to halt the nuclear arms race.

ENST 255 Atmospheric Environment of Humans (2)

Air pollution and temperature inversions, global circulation of pollutants, acid rain, human impact on the ozone layer, carbon dioxide and climatic change, nuclear winter and other climate/human relationships.

ENST 265 Conservation of Natural Resources (2)

Learn the characteristics of the major natural resources and the scientific basis behind current resource use practices. The environmental consequences of their use and abuse will be emphasized.

ENST 335 Environmental and Resource Economics (3)

Prerequisite: ECON 105. Students will examine the strengths and weaknesses of economic theory in analyzing the seriousness of resource and environmental issues facing society.

ENST 355 Introduction to Environmental Health (3)

Discussion of the relationships of environmental pollution to the ecosystem and health of humans. Analyze major areas of environmental pollution: water, air, solid wastes, pesticides, radioactive wastes and population.

ENST 375 Literature and the Environment (3)

Explore writing about nature or human relationships with nature from various periods and cultures. What economic, scientific, philosophic and religious attitudes emerge from attitudes about nature and do these influence human treatment of natural things.

ENST 385 Art and the Environment (2)

Investigate and participate in the process of art as it relates to the different environments of human existence.

ENST 405 Senior Seminar (3) Discuss current environmental issues in depth and in detail, on the basis of student background, library resources, interviews and guest speakers. Individuals and small groups analyze and present problems.

ENST 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ENST 492 Internship in Environmental Studies (4-15)

Permission ENST coordinator. Practical experience and training in areas related to the environment. Credit hours and nature of experience arranged individually. Repeatable, maximum of 15 credits.

ENST 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ENST 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ENST 515 Environment and Environmental Problems (2)

Examine the structural and functional relationships of the environment with emphasis on present and long-term problems. Previous experience or courses in natural and social sciences useful but not required.

EPSY - Educational Psychology**EPSY 346 Learning and Development for Teachers (2)**

Corequisites: EDMG 420 for middle grades program; EDSE 430 for elementary education program. Provisional or full admittance to PTEP required. Cognitive, linguistic, affective, and social development, with particular attention to elementary students. Contemporary learning theories and their applications to practice at the elementary level. Emphasis on integration of theory and practice, with numerous classroom applications of psychological theories and principles considered throughout. Geared specifically for pre-service teachers.

EPSY 347 Educational Psychology for Elementary Teachers (3)

Provisional or full admittance to PTEP required. Study the relationships between theory, research, and practice in learning, memory, child development, motivation, and educational assessment for elementary classroom settings.

EPSY 348 Educational Psychology for Middle School Teachers (3)

Provisional or full admittance to PTEP required. Study the relationships between theory, research, and practice in learning, memory, child development, motivation, and educational assessment for middle school classroom settings.

EPSY 349 Educational Psychology for Secondary Teachers (3)

Provisional or full admittance to PTEP required. Study the application of principles derived from research on learning, memory, adolescent development, motivation, and educational assessment and measurement to secondary classroom settings.

EPSY 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

EPSY 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

EPSY 530 Life Span Developmental Psychology (3)

Human growth and development from conception through senescence, focusing on cognitive, affective, social and psychomotor development throughout the life span.

EPSY 540 Theories and Principles of Learning (3)

A survey of classical and contemporary theory and research related to human cognition. Topics include the study of learning processes, memory and higher cognitive functions.

EPSY 622 Directed Studies (1-4)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

EPSY 630 Child and Adolescent Psychology (3)

Prerequisite: EPSY 530 or equivalent. Physical, social and emotional development of children from conception through puberty, stressing normal development and major development theories.

EPSY 631 Psychology of Youth, Adulthood and Aging (3)

Prerequisite: EPSY 530 or equivalent. Cognitive, social and physical developments that affect transitions in youth, adulthood and senescence.

EPSY 635 Individual Differences in Cognition (3)

Prerequisite: EPSY 540 or equivalent. Examine individual differences between learners from a cognitive viewpoint. Review verbal, mathematical and spatial abilities, cognitive styles, problem solving and gender and cultural differences. Seminar format.

EPSY 654 Seminar in College Teaching (3)

Practices, issues and research in college teaching. Instructional models and methods, course planning, cognition, testing and grading, student-teacher interaction and ethics.

EPSY 661 Trends and Issues in Educational Psychology (3)

Majors only. Examines professional, philosophical, theoretical issues and trends across the discipline. Students practice and receive feedback regarding written and oral communication skills. S/U graded.

EPSY 663 Apprenticeship (1-3)

Consent of instructor. Work with faculty member on professional endeavors such as research, writing, course planning or public service. Requires 3 hours per week for each credit. S/U graded. Repeatable, maximum of nine credits.

EPSY 674 Measurement I: Educational Testing (3)

Prerequisite: SRM 600. Construction and evaluation of tests and other measures. Topics include score and norm interpretation, reliability and validity. Item construction and analysis, rating scales and questionnaires.

EPSY 675 Measurement II: Advanced Techniques (3)

Prerequisite: EPSY 674. Classical and modern measurement theory and methods. Derivations of reliability and validity formulae, test bias, item response theory, logistic models, score equating, standards, individual prediction and classification.

EPSY 682 Cognition and Instruction (3)

Prerequisite: EPSY 540. A critical survey and analysis of the research literature in cognitive psychology pertaining to issues of instruction and human performance. Research on learning environments and cognitive apprenticeships is also examined.

EPSY 684 Advanced Seminar in Human Development (3)

Prerequisite: EPSY 530. For Graduate students wishing to develop advanced competency. Periodically, seminar may focus on topic reflecting instructor's interest area or on developing a student's inquiry. Repeatable, maximum of nine credits.

EPSY 685 Advanced Seminar in Learning and Cognition (3) Prerequisite: EPSY 540. Pursue original research into learning and cognitive processes under the guidance of a faculty member. Arranged to reflect faculty and students' interests. Repeatable, maximum of nine credits.

EPSY 692 Internship in Educational Psychology (1-9) Consent of instructor. Full- or part-time assignment in a field-based setting under supervision. Students work a minimum of 3 hours per week for each hour of credit. S/U graded. Repeatable, maximum of 18 credits.

EPSY 694 Practicum (1-9) Consent of instructor. Experiential learning in an on-campus setting in conjunction with supervision by a faculty member. Students work a minimum of 3 hours per week for each hour of credit. S/U graded. Repeatable, maximum of 18 credits.

EPSY 695 Special Topics in Educational Psychology (1-3) Specialized topics or contemporary issues. Topics vary. Repeatable, maximum two times, under different subtitles.

EPSY 699 Thesis (1-6) Empirical investigation under the direction of a graduate faculty member. Thesis must be approved by the faculty committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

EPSY 797 Doctoral Proposal Research (1-4) Doctoral students must earn 4 hours as partial fulfillment of requirements for the doctorate. Check with the Graduate School regarding appropriate procedures and formats. S/U graded. Repeatable, maximum of four credits.

EPSY 799 Doctoral Dissertation (1-12) Must earn 12 hours as partial fulfillment of requirements for the doctorate. Dissertation must be approved by and defended before the dissertation committee. S/U graded. Repeatable, no limitations.

ESCI - Earth Sciences

ESCI 265 Earth Science Concepts for Elementary Teachers (3) (2 lecture, 2 laboratory) An investigation of basic concepts in the Earth Sciences through lecture, discussion and laboratory investigations. This course is ideal for those seeking elementary teacher certification. Fee required.

ESCI 450 Strategies in Teaching in Earth Sciences (1) (2 laboratory) Demonstration and strategies appropriate for teaching earth science concepts and presentation of controversial issues and management of laboratory and field trip activities.

ESCI 484 Earth Sciences Field Experiences (1-15) Consent of instructor. Field studies in astronomy, geology, meteorology and/or oceanography, usually preceded by on-campus orientation. Schedule of classes lists specific area and topic to be investigated when course is offered. Repeatable under different subtitles. Field trip fee required.

ESCI 492 Earth Science Internship (1-15) Consent of instructor. Internship in a public agency or private firm to provide professional experience under the supervision of an area specialist. S/U Graded. Repeatable maximum 15 credits.

ESCI 497 Undergraduate Research (1-4) Consent of instructor. Original research in the earth sciences conducted under the guidance of a faculty advisor. Results of the investigation are to be presented both in a written report and orally. Repeatable, maximum of six credits.

ESCI 504 Minerals and Rocks (3) (2 lecture, 2 laboratory) No credit for Earth Science majors. A practical course dealing with the origin, classification, recognition and uses of minerals and rocks. Field trip and outside reading are required. Fee required.

ESCI 575 Earth Systems Science Education (1-6) A variable content course covering integrated science content and pedagogy from the following: atmosphere (air), biosphere (life), hydrosphere (water), and/or lithosphere (land/rock). Repeatable, under different subtitles.

ESCI 584 Earth Sciences Field Experiences (1-15) Consent of instructor. Field studies in astronomy, geology, meteorology and/or oceanography, usually preceded by on-campus orientation. Schedule of classes lists specific area and topic to be investigated when course is offered. Repeatable under different subtitles.

ESCI 599 Seminar in Earth Sciences (1) Consent of instructor. Invited speakers, including graduate students, faculty and guests, present current earth science research topics in seminar format. Required of graduate students all semesters they are in residence at UNC. S/U graded. Unlimited repeatability.

ESCI 600 Introduction to Earth Science Research (2) Consent of instructor. Nature and methods of research in the earth sciences. Development of research proposal that will provide the basis for thesis or graduate research project. Required of all first year Earth Sciences graduate students.

ESCI 695 Special Topics in Earth Sciences (2) Consent of instructor. Faculty and students select an earth sciences topic for intensive study beyond the scope of existing departmental course offerings. Repeatable, no limitations.

ESCI 697 Graduate Research (1-6) Consent of instructor. Qualified graduate students select and research a problem and present professional quality written report. Repeatable, maximum of six credits.

ESCI 699 Thesis (1-6) Intensive study of selected earth sciences topic under the direction of student's graduate studies committee. S/U graded. Repeatable, no limitations.

ESL - English as a Second Language

ESL 051 Writing for Foreign Students (1-3) Designed to help foreign students with college writing tasks, including essays, term papers, theses. For students whose English language skills are at advanced level. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA. Unlimited repeatability.

ET - Educational Technology

ET 100 Computer Applications for Composition (1) Taken concurrently with composition classes. Word processing, graphics and stylistic analysis applications to improve student's writing process. Includes CAI tutorials and tests.

ET 201 Technology in Education (1) Corequisites: EDF 366 for elementary education program; EDMG 200 for middle grades program; STEP 160, STEP 161 for secondary education program. Instruction and practice using a variety of technology tools. Issues related to the application of these tools (intellectual freedom, critical viewing skills, technology access and equity) will also be explored.

ET 301 Educational Technology Applications (1) Corequisites: EDEL 430 for the elementary education program; EDMG 440, EDSE 411, EDRD 440 for the middle grades program; STEP 363, EDRD 324 and appropriate secondary methods course for the secondary education program. Provisional or Full Admittance to PTEP required. Sophomores or above. Integration of various instructional delivery systems into teaching. Content-specific applications of computing, video, print, and telecommunications technologies and issues of relevance to the education community.

ET 401 Classroom Applications of Educational Technology (2) Provisional or Full admission to PTEP required. Includes instructional design and media selection, design and utilization of microcomputers applications.

ET 422 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ET 425 Computer Applications (3) Course content includes spreadsheets, word processing, data base, presentation software, communication software, graphics and content specific software applications. S/U graded.

ET 495 Special Topics in Educational Technology (1-3) Consent of instructor. Scheduled on irregular basis. Explore special topics in Educational Technology. An appropriate subtitle will explain each course. Repeatable two times, under different subtitles.

ET 500 Introduction to Performance Technology (3) Human performance improvement systems (including technology, learning, management, communication, human factors and media) their impact upon the process of education and training are described.

ET 502 Instructional Development (3) Covers development procedures and analysis systems/ techniques for determining instructional content. Determines instructional efficiency at systems, curriculum, course and lesson levels.

ET 503 Computers in Education (3) A survey course of computer systems, operating languages and educational applications. Includes types of classroom programs and software applications.

ET 504 Instructional Materials Design (3) Procedures for designing and developing instructional materials. Includes scripting and production specifications for graphic, audio, slide/tape and/or video formats.

ET 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ET 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ET 524 Design of Computer Assisted Instruction (3) Prerequisite: ET 503. A study of the design and development of computer assisted instruction, introducing both authoring system and general purpose programming language paradigms.

ET 530 Media Cataloging and Classification (3) Study the purpose, theory and principles of cataloging and classifying media. Includes Dewey Decimal, Library of Congress and other systems, as well as on line cataloging.

ET 533 Reference and Information Management (3) Discuss suitable materials for elementary, secondary and post secondary resource centers as well as data bases and research indices for students, instructors and administrators.

ET 535 Administration of Instructional Resources (3) Learn the essentials of organizing and administering instructional resource centers at elementary, secondary and post secondary levels. Includes budget preparation and personnel management.

ET 536 Media Selection, Utilization and Evaluation (3) Selection principles, utilization strategies and evaluative criteria for print and non-print media for individuals, groups, different ages and cultural groups. Includes CAI/CMI evaluation.

ET 602 Instructional Analysis and Design (3) Prerequisite: ET 502. Application of contemporary methods of assessment, design, development, implementation and evaluation of instructional courses, programs and systems.

ET 604 Advanced Design of Instructional Materials (3) Prerequisites: ET 504, EPSY 540. Application of principles of human learning, perception, and motivation to the design and production of materials to support learning and performance.

ET 613 Instructional Telecommunications (3) Conceptual issues and production techniques for developing instructional telecommunication systems and programs.

ET 615 Distance Education: Theories and Practice (3) Includes an overview of distance education foundations, design issues systems development and applications across curricula.

ET 622 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ET 627 Computer Assisted Instruction Authoring Systems (3) Prerequisites: ET 503, ET 524. The generation and validation of computer based courseware using programming languages and authoring systems.

ET 628 Design of Multimedia Learning Environments (3) Prerequisites: ET 503, ET 524. Investigation of the theory, implementation, practice, and research on interactive, computer based instructional systems including videodisk, videotape, digital video, CD-ROM, and image capture technologies.

ET 650 Corporate Course Design (3) Consent of Instructor. Reviews issues related to corporate course design. RFP preparation, human factors, incentive systems, pluralism and resource management are also featured.

ET 680 Integration of Technology into Curricula (3) Prerequisite: ET 503 or consent of instructor. Deals with issues and methodologies for integrating technology into existing K-12 curricula. Specific approaches and problems with current models will be investigated and directions for research discussed.

ET 684 Seminar in Educational Technology (3) Consent of instructor. For graduate students wishing to develop advanced competency in educational technology. Periodically, seminar may focus on topic reflecting instructor's interest area or on developing a student's inquiry.

ET 692 Internship (3) Advisors recommendation and permission of program director. Individual field experience in educational technology. Field experience and summative report format must be approved by advisor. S/U graded. Repeatable, under different subtitles.

ET 693 Practicum (1-3) Supervised professional activity requiring a minimum of 10 hours per week. Develop project, product or technological device unique to the field. An approved end of semester project report is required. S/U graded. Repeatable, under different subtitles.

ET 695 Special Topics in Educational Technology (1-3) Consent of instructor. Scheduled on irregular basis. Explore special topics in Educational Technology. An appropriate subtitle will explain each course. Repeatable, under different subtitles to a maximum of three credits.

ET 702 Instructional Design Theory and Research (3) Prerequisite: ET 602. Includes examinations of theories underlying instructional design methods. Review and critique of basic and applied research bases is featured.

ET 735 Design of Complex Technology Systems (3) Exploration of the design, organization and administration of large and complex technology systems. Investigation of the essential elements necessary for the successful operation of large complex systems.

ET 780 Diffusion of Technological Innovations (3) Investigation of the literature and research base in diffusion of innovations. Application of theoretical and research findings to the diffusion of technological innovations.

ET 784 Doctoral Seminar in Educational Technology (3) Prerequisite: ET 500. Investigation of the development of the field of educational technology including the theoretical and research bases for the field. Exploration of current research problems and directions for future research in educational technology.

ET 797 Doctoral Proposal Seminar (1-4) Design of research proposals and conducting pilot studies to examine feasibility of proposed hypothesis. Summarize existing research, identify problems, develop hypotheses and justify selection of design components. S/U graded. Repeatable, maximum four credits.

ET 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Student must earn 12 hours of credit for the dissertation as partial fulfillment of requirements for all doctoral degrees. Repeatable, no limitations.

FL - Foreign Languages

FL 341 Methods of Teaching in the Secondary School (3) Full admission to PTEP or permission of instructor required. Prerequisite to student teaching. Emphasize teaching techniques, curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to entire secondary program.

FL 508 Workshop (1-10) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

FL 513 Professional Renewal (1-10) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

FL 531 Teaching of Foreign Languages (1-4) Study problems in teaching at secondary and elementary school levels, content development for course of study, organization of learning materials, teaching procedures, testing and evaluating. Normally conducted in workshop format. Repeatable, under different subtitles.

FL 601 Practicum (1-10) Open only by invitation to resident graduate students. Supervised professional activity in student's area of interest. Repeatable, maximum 10 credits.

FND - Food, Nutrition and Dietetics

FND 210 Medical Terminology (2) For students of any major. Terminology used in medical sciences. Development of medical vocabulary.

FND 250 Principles of Nutrition (3) For students of any major. Investigation of the principles of nutrition as applied to humans.

FND 251 Introductory Nutrition (3) Prerequisite: CHEM 108 or CHEM 131. Basic nutrient concepts including individual nutrients and their interactions.

FND 252 Nutrition in the Life Cycle (3) Prerequisite: FND 250. Nutrition applied to the various stages of life, from conception to the later years. Socioeconomic, psychological, physiological factors affecting food intake.

FND 308 Workshops in Food, Nutrition and Dietetics (1-3) Investigate various issues in Food, Nutrition and Dietetics. Each workshop has a subtitle and no subtitle may be repeated for credit. Repeatable, under different subtitles.

FND 342 Food Science (4) (2 lecture, 2 laboratory) Prerequisites: CHEM 131, FND 250. Study of the chemical and physical properties of food and the effects of processing and preparation, preservation and storage. Fee required.

FND 357 Nutrition in Health and Illness (4) Prerequisites: CHEM 108, ZOO 350 or take concurrently. Basic nutrition concepts including individual nutrients and their association with disease states. Course is intended for nursing and other allied health professional students.

FND 410 Professional Development Seminar (3) Dietetic majors only. Development of the dietetic profession. Examination of topics in nutrition and dietetics not covered in previous coursework. Methods of teaching nutrition in different educational settings.

FND 420 Maternal and Child Nutrition (3) Prerequisite: FND 250 or FND 357. The study of developmental stages, nutrient requirements, appropriate diet and eating behaviors for children from conception through school age, common nutrition related conditions of children and nutrition for the pregnant and lactating woman.

FND 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

FND 430 Clinical Nutrition I (3) (2 lecture, 1 laboratory) Prerequisites: FND 252, ZOO 245, CHEM 109. Nutrition assessment and intervention during acute and chronic disease. Theory and practical application presented.

FND 431 Clinical Nutrition II (3) (2 lecture, 1 laboratory) Prerequisite: FND 430. Continuation of FND 430. Laboratory arranged. Nutrition assessment and intervention during acute and chronic disease. Theory and practical application presented.

FND 446 Foodservice Systems Management (4) (3 lecture, 1 laboratory) Prerequisites: FND 252, FND 342. Systems approach applied to commercial and noncommercial food service facilities including: procurement, production, distribution, service and maintenance. Management of foodservice operations. Laboratory required.

FND 451 Advanced Nutrition (3) Prerequisites: FND 250, CHEM 109, ZOO 245. Metabolic, physiological and biochemical functions of nutrients and subcellular components and their role in maintaining the integrity of the organism.

FND 452 Community Nutrition (3) Prerequisites: FND 250 and FND 252. Systematic analysis of community food and nutrition problems and programs. Role of public and private sectors in community health promotion.

FND 453 Nutrition Intervention Practicum (1-2) Prerequisites: FND 430, FND 431 or take concurrently. Consent of instructor. Majors only. Application of the principles of clinical and community nutrition through laboratory and clinical experiences. Repeatable, maximum 2 credits.

FND 455 Nutrition for Fitness and Athletic Performance (3) The study of nutrition principles as they apply to the promotion of optimal physical fitness and athletic performance. Current research and evaluation of nutritional recommendations will be stressed.

FND 508 Workshop (1-3) A Variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

FND 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

FND 520 Maternal and Child Nutrition (3) Prerequisite: FND 250 or FND 357. The study of developmental stages, nutrient requirements, appropriate diet and eating behaviors for children from conception through school age, common nutrition related conditions of children and nutrition for the pregnant and lactating woman.

FND 555 Nutrition for Fitness and Athletic Performance (3) The study of nutrition principles as they apply to the promotion of optimal physical fitness and athletic performance. Current research and evaluation of nutritional recommendations will be stressed.

FR - French

FR 100 Beginning French (5) For students with no previous French. Conversational French using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

FR 102 Elementary French II (5) Prerequisite: FR 100 or equivalent. Continuation of 100 or 101. Conversational French using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

FR 116 Contemporary France (3) Become familiar with the culture and society of France with special emphasis on contemporary French issues. Conducted in English.

FR 150 Practicum in Contemporary Culture (1) Previous French required. Study and experience one facet of French culture such as a play, folk dances, film or music. Topic varies. Class conducted in French. Conversation is stressed. Repeatable, maximum of 2 credits under different subtitles.

FR 201 Intermediate French I (3) Prerequisite: FR 102 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest. Conducted in French. Fee required.

FR 202 Intermediate French II (3) Prerequisite: FR 201 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest. Conducted in French. Fee required.

FR 300 Intermediate French Reading (1-3) Prerequisite: FR 201 or equivalent. Expand and develop reading and analytical skills in preparation for advanced French civilization and literature courses. Conducted in French. Repeatable, maximum four credits.

FR 301 French Conversation and Composition I (3) Prerequisite: FR 202 or equivalent. Develop fluency in writing and conversation and build vocabulary through discussion and compositions about everyday life in the French-speaking world. Conducted in French.

FR 302 French Conversation and Composition II (3) Prerequisite: FR 301 or equivalent. Continue to study the more complex elements of French syntax and sentence structure and acquire flexibility of expression in the written and spoken language. Conducted in French.

FR 311 French Civilization and Literature Survey I (3) Prerequisite: FR 202 or equivalent. Study of French civilization from prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, artistic and literary development of France. Conducted in French.

FR 312 French Civilization and Literature Survey II (3) Prerequisite: FR 202 or equivalent. Study of French civilization from the French Revolution to the present, including the historical, economic, political, social, artistic and literary development of France. Conducted in French.

FR 350 Practicum in Teaching French (2) Participation in a teaching practicum and a seminar involving the critique and discussion of learning problems and day-to-day difficulties encountered in the French language classroom.

FR 401 Intensive French (1-8) Available only on Study Abroad. Experience intensive training in active use of French through formal classroom instruction. Special attention to grammar review, idioms and media language. Conducted in French. Repeatable, maximum eight credits (if course content varies).

FR 402 Contemporary Life in France (1-6) Available only on Study Abroad. Examine the customs, institutions and mores of present-day France. Study the historical context of these traditions and how they reflect the French character. Conducted in French. Repeatable, maximum six credits (if course content varies).

FR 403 France of the Ancien Regime (1-8) Available only on Study Abroad. Study of social, cultural and political developments in French-speaking Europe from prehistory to the French Revolution with attention to art, architecture, theatre and music. Conducted in French. Repeatable, maximum eight credits (if course content varies).

FR 404 Modern France (1-8) Available only on Study Abroad. Study of social, cultural and political developments in post French Revolution. French-speaking Europe, with special attention paid to art, architecture, theatre and music. Conducted in French. Repeatable, maximum eight credits (if course content varies).

FR 405 Business French (3) Prerequisite: FR 202 or equivalent. Learn language skills for use in commercial, professional and government activities. Emphasize acquiring professional vocabulary, building reading and conversational skills and developing mechanics, style and translation of correspondence. Conducted in French.

FR 407 French for Oral Proficiency (3) Intermediate oral proficiency in French required. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

FR 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

FR 450 Studies in French Literature (3) Prerequisite: FR 302 or FR 312. Study complete works of major authors representing different movements and genres. Conducted in French. Repeatable, under different subtitles.

FR 475 Seminar in French Literature (2) Prerequisites: FR 302 and FR 450. Analyze and discuss French Literature pertaining to a specific topic. Prepare a research paper for class discussion and critique. Conducted in English. Repeatable, under different subtitles.

FR 502 Contemporary Life in France (3) Graduate status in French. Available only on Study Abroad. Examine the customs, institutions and mores of present-day France. Study the historical context of these traditions and how they reflect the French character. Conducted in French. Repeatable, maximum six credits (if course content varies).

FR 505 Topics in French Civilization (1-3) Graduate status or consent of instructor. Study a variety of selected topics relevant to the Francophone world. Topics to be considered also as material for presentation in the secondary classroom. Conducted in French. Repeatable, under different subtitles to a maximum of 15 credits.

FR 506 Topics in French Literature (1-3) Graduate status or consent of instructor. Reading and discussion of significant works in French-language literature. Works selected and discussed with a focus on their applicability to the secondary classroom. Conducted in French. Repeatable, under different subtitles to a maximum of 10 credits.

FR 507 French for Oral Proficiency (3) Graduate status in French. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

FR 508 Workshop (1-10) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

FR 511 French Civilization and Literature Survey I (3) Graduate status in French. Study of French Civilization and prehistoric times up through the eighteenth century, including the historical, geographical, economic, political, artistic and literary development of France. Conducted in French.

FR 512 French Civilization and Literature Survey II (3) Graduate status in French. Study of French civilization from the French Revolution to the present, including the historical, economic, political, social, artistic and literary development of France. Conducted in French.

FR 513 Professional Renewal (1-10) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

FR 521 Problems in Advanced Grammar (1-3) Graduate status or consent of instructor. Learn the more difficult grammatical structures with special emphasis on structures presenting special difficulties in teaching French. Conducted in French. Repeatable, under different subtitles to a maximum of five credits.

FR 522 Problems in Advanced Composition (1-3) Graduate status or consent of instructor. Emphasize written expression, style and idiomatic usage of the French language. Conducted in French. Repeatable, under different subtitles to a maximum of five credits.

FR 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GEOG - Geography

GEOG 100 World Geography (3) Introduction to the complex relationships that link humans with their physical, cultural and spatial environments. Students will investigate these diverse relationships through a variety of worldwide examples.

GEOG 110 Geography of the United States and Canada (3) An analysis of the cultural and environmental patterns of North America, with emphasis on the geographic processes that shape them.

GEOG 200 Human Geography (3) Study the role of location and locational questions in human behavior including how locational factors influence behavior and resulting social and cultural modifications.

GEOG 232 Physical Geography (4) (3 lecture, 2 laboratory). Study the natural environments that cover the earth, the processes that shape them and their role as settings for human action. Field trip required. Fee required.

GEOG 264 Maps and Imagery (3) Learn effective use of maps and globes and develop skill in reading and interpreting maps and imagery.

GEOG 300 Advanced Human Geography: Topics (3) Prerequisite: GEOG 200. Examine the evidence and imprint of cultural values on geographic landscapes; utilize techniques of spatial diffusion, cultural ecology and integration and landscape analysis to identify and investigate culture regions. Repeatable, under different subtitles.

GEOG 302 Cartography (3) Required laboratory arranged. Prerequisite: GEOG 264. Study the fundamentals, theory and practice of maps and graphic representation. Two one-hour lectures and one credit hour for arranged laboratory work. Fee required.

GEOG 312 Economic Geography (3) Prerequisite: GEOG 200. Discern how geographic and economic conditions affect the products, industries, commerce and resources of the world, particularly the United States.

GEOG 315 Resource Management (3) Prerequisite: GEOG 225. Explore the theoretical nature of human-environment systems from a geographical viewpoint and examine locational factors that influence behavior and resulting geographic patterns.

GEOG 318 Australia (2) Prerequisite: GEOG 100. The geographic arrangement and interaction of human communities, social groups and urban and rural population in Australian society. The relationship of Australia's physical environment to the human patterns.

GEOG 320 Population Geography (3) Prerequisite: GEOG 200. Analysis of world population distribution and change utilizing geographic themes and demographic measures, with particular attention to migration, urbanization, environmental impact, and national planning.

GEOG 325 Advanced Physical Geography: Topics (3) Prerequisite: GEOG 225 or equivalent course. Study the complexities of the physical world and investigate the interactions between human activities and the physical environment. Repeatable, under different subtitles.

GEOG 326 Africa (3) Prerequisite: GEOG 100. Identify and analyze relationships between the physical and cultural patterns, including land use, resource development, social, political and economic problems.

GEOG 335 Geography of Middle America (3) Prerequisite: GEOG 100. Study the complex patterns of population, politics, economy and lifestyles as they relate to the diverse physical and multicultural environments of Middle America. Analyze the strategic location of this region as it pertains to United States foreign relations.

GEOG 340 Europe (3) Prerequisite: GEOG 100. Study the relationships between the physical and cultural environments, including land use, resources, economics and political problems.

GEOG 344 Asia: Special Topics (3) Prerequisite: GEOG 100. Study the regions of Asia through variable offerings. Examine patterns of physical and cultural landscapes, social organization and economic activities. Repeatable, under different subtitles.

GEOG 350 Colorado (3) Prerequisite: GEOG 110. Study the geographical and human resources of Colorado, including physical features, climate, landform regions and natural resources and their utilization and conservation.

GEOG 360 Political Geography (3) Prerequisite: GEOG 100. Learn about political phenomena as they relate to a particular geographic setting. Topics of study include territorial expansion, global overpopulation, national resources, territorial sea and warfare. Adequate time will be devoted to class discussion.

GEOG 365 Russia and Eurasia (3) Prerequisite: GEOG 100. A regional analysis of geographic conditions, their historical importance and their relation to economic, social and political problems in Russia and the other republics of the former Soviet Union.

GEOG 370 Urban Geography (3) Prerequisite: GEOG 200. Analysis of the origins, distribution, growth, functions, transportation and land use patterns of cities, emphasizing the North American city.

GEOG 392 Field Course in Geography (1-6) Study and apply the techniques used in solving geographic problems in the field and effectively present the results of such studies. Repeatable, may be taken two times.

GEOG 407 Theory and Use of Geographic Information Systems (3) Prerequisites: GEOG 264, GEOG 302. An introduction to the basic concepts and operations of computer-based geographic information systems. Fee required.

GEOG 410 Teaching Geography in Secondary Curriculum (1) Prerequisite: SOSC 341 or equivalent. Full admission to PTEP or current licensure required. Study fundamental themes in geography, use current materials and create new lessons and materials for teaching geography at the secondary level.

GEOG 412 Advanced Cartography (3) Prerequisite: GEOG 302 or consent of instructor. Study fundamental thematic map communication concepts emphasizing data collection and processing, symbolization, map design and computer-assisted drafting. Fee required.

GEOG 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GEOG 438 South America (3) Prerequisite: GEOG 100. Analyze physical features and patterns, placing major emphasis on land utilization, agriculture, resource development, settlement and migration patterns and processes of industrialization.

GEOG 453 Geography of the Great Plains (3) Prerequisite: GEOG 110. Survey the physical and cultural landscapes of the Great Plains, particularly the unifying character of the physical environment and aspects of culture that make this a distinct geographic region. Field trips encouraged.

GEOG 475 Quantitative Techniques in Geography (3) Prerequisite: STAT 150 or consent of instructor. Examine elementary statistical techniques useful to the analysis of geographical data. Some background in mathematics useful.

GEOG 492 Internship (1-6) Advanced undergraduate majors and minors use geographic training while working in local, state or federal agencies. Participants must meet university internship requirements. Unlimited repeatability.

GEOG 495 Senior Seminar (3) Research selected geographic topics based on the student's major emphasis. Course focuses on the assessment of students' geographic knowledge base, research and analysis skills.

GEOG 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

GEOG 510 Topics in Teaching Geography (2) Appraise and become familiar with various concepts, theories and skills in geography and with the techniques and methodologies appropriate for teaching them. Repeatable, maximum six credits.

GEOG 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

GEOG 520 Topics in Systematic Geography (2) Graduates only or consent of instructor. Examine a selected area of systematic geography; consider appropriate pedagogical approaches in teaching about that geographic topic.

GEOG 525 Topics in Regional Geography (2) Graduates only or consent of instructor. Examine a selected geographic region; consider appropriate pedagogical approaches in teaching the geography of the region.

GEOG 538 South America (3) Analyze physical features and patterns, placing major emphasis on land utilization, agriculture, resource development, settlement and migration patterns and processes of industrialization.

GEOG 553 Geography of the Great Plains (3) Survey the physical and cultural landscapes of the Great Plains, particularly the unifying character of the physical environment and aspects of culture that make this a distinct geographic region. Field trips encouraged.

GEOG 560 Maps and Mapping in Geographic Education (2) Graduates only or consent of instructor. Study concepts of location on the earth's surface, map projections, data acquisition and processing, thematic mapping. Work with computer-assisted drafting and thematic mapping packages. Develop applications for teaching geography.

GEOG 565 Computer Applications in Geographic Education (2) Graduates only or consent of instructor. Examine computer-based resources for managing and displaying geographic information; develop applications for teaching geography.

GEOG 570 Classroom Technology in Geographic Education (2) Graduates only or consent of instructor. Introduce noninteractive and interactive technology appropriate for teaching K-12 geography. Develop units using interactive technology for teaching geography.

GEOG 575 Seminar in Quantitative Geography (3) Prerequisite: GEOG 475 or equivalent. Undertake selected research projects that provide experience in the use of quantitative techniques in interpreting geographical data.

GEOG 592 Field Course in Geography (1-6) Study and apply techniques used, solve geographic problems in the field and effectively present results of such studies. Unlimited repeatability.

GEOG 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GEOL - Geology

GEOL 100 General Geology (4) (3 lecture, 2 laboratory) Survey for non-science majors. Origins and classification of minerals and rocks, landscape development and earth's structure and history. Field trips required. No credit for both GEOL 100 and GEOL 201. Fee required.

GEOL 110 Geology and Society (3) Interaction between people and the geological environment. Deals with such topics as earth dynamics, geologic time, origin of landscapes, natural resources and geologic hazards such as volcanoes, earthquakes, floods and landslides.

GEOL 201 Physical Geology (4) (3 lecture, 3 laboratory) For Geology and other science majors. Introduction to earth materials, landform development, geologic structures and tectonics. Field trips required. No credit for both GEOL 100 and GEOL 201. Fee required.

GEOL 202 Historical Geology (4) (3 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201 or equivalent. Geologic history of the earth and its past life and principles and techniques employed to interpret this history from rocks and fossils. Field trips to investigate local geologic history required. Fee required.

GEOL 320 Mineralogy (4) (2 lecture, 4 laboratory) Prerequisites: GEOL 201, CHEM 111. Introduction to crystallography, crystal chemistry, descriptive and determinative mineralogy, study of mineral occurrences and associations. Examine crystallography and identify minerals by physical and x-ray techniques in laboratory. Field trip(s) required. Fee required.

GEOL 330 Earth Materials (3) (2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Crystals, minerals and igneous, metamorphic and sedimentary rocks - their origins, descriptions and classifications.

GEOL 340 Paleontology (4) (2 lecture; 6 laboratory) Prerequisite: GEOL 202. Fossil animals and plants - fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostratigraphy, evolutionary trends. Field trip required. Fee required.

GEOL 390 Colorado Geology (3) Prerequisite: GEOL 100 or equivalent. Colorado rocks, minerals, fossils, landforms, oil, coal, oil shale, geologic history and geologic hazards explored in informal atmosphere. Includes four-day field trip to investigate geological features in natural settings. Fee required.

GEOL 421 Optical Mineralogy and Petrography (4) (2 lecture, 4 laboratory) Prerequisite: GEOL 320. Use of the petrographic microscope to study minerals in immersion media and in rock thin sections and the hand sample and microscopic description of rocks. Fee required.

GEOL 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GEOL 450 Sedimentology and Stratigraphy (4) (3 lecture, 3 laboratory) Prerequisite: GEOL 202. Sedimentary processes; depositional environments; classification and structures of sedimentary rocks; field and laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required. Fee required.

GEOL 460 Geomorphology (3) (2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Origin and evolution of landforms with emphasis on fluvial processes; hydraulic characteristics of streams, morphology of drainage basins, landscape evolution by stream sculpture and deposition and lithologic, climatic and structural controls. Fee required.

GEOL 464 Glacial and Quaternary Geology (3) Prerequisite: GEOL 100 or GEOL 201. A survey of geologic phenomena that characterized the Quaternary Period, with emphasis on the behavior of glaciers, glacial landforms and sediment and climatic implications. Two Saturday field trips required. Fee required.

GEOL 470 Structural Geology (4) (3 lecture, 3 laboratory) Prerequisites: GEOL 201, PHYS 220, MATH 125. Mechanics of rock deformation and geologic structures of the earth's crust — their description and classification, theories and facts regarding their origins and methods of investigating them. Field trips required. Fee required.

GEOL 481 Geologic Field Techniques (2) (4 laboratory) Prerequisites: GEOL 202, GEOL 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, plane table and aerial photographs and the preparation of geological reports. Fee required.

GEOL 482 Geology Field Camp (6) Prerequisites: GEOL 421, GEOL 470, GEOL 481. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.

GEOL 510 Groundwater Geology (2) Groundwater in the geologic setting. Hydrology of groundwater basins. Well hydraulics. Principles of flow in saturated and unsaturated materials. Modeling of hydrogeologic systems. Applications to groundwater contamination and management problems.

GEOL 521 Optical Mineralogy and Petrography (4) (2 lecture, 4 laboratory) Prerequisite: GEOL 320. Use of the petrographic microscope to study minerals in immersion media and in rock thin sections and the hand sample and microscopic description of rocks. Fee required.

GEOL 525 Economic Geology (3) Prerequisite: GEOL 320. Deals with the origin and occurrence of metallic and related mineral deposits and also with the origin, migration and accumulation of oil and natural gas deposits. Field trip required. Fee required.

GEOL 533 Sedimentary Petrology (2) (1 lecture, 3 laboratory) Prerequisite: GEOL 421 or GEOL 521. Advanced study of sedimentary rocks. Various techniques, including use of the petrographic microscope, will be employed to analyze these rocks and to interpret their histories. Field trip required. Fee required.

GEOL 535 Tectonics (2) Prerequisite: GEOL 202. The earth's tectonic features and the models which have attempted to explain them. Detailed study of modern plate tectonic theory and the evidence which supports it.

GEOL 540 Paleontology (4) (2 lecture; 6 laboratory) Prerequisite: GEOL 202. Fossil animals and plants - fossilization processes, collecting procedures, specimen preparation, description, classification, functional morphology, paleoecology, biostratigraphy, evolutionary trends. Field trip required. Fee required.

GEOL 550 Sedimentology and Stratigraphy (4) (3 lecture, 3 laboratory) Prerequisite: GEOL 202. Sedimentary processes; depositional environments; classification and structures of sedimentary rocks; field and laboratory methods of analyzing and interpreting outcrops and samples. Regional stratigraphy of northeastern Colorado investigated. Field trips required. Fee required.

GEOL 560 Geomorphology (3) (2 lecture, 3 laboratory) Prerequisite: GEOL 100 or GEOL 201. Origin and evolution of landforms with emphasis on fluvial processes; hydraulic characteristics of streams, morphology of drainage basins, landscape evolution by stream sculpture and deposition and lithologic, climatic and structural controls. Fee required.

GEOL 564 Glacial and Quaternary Geology (3) Prerequisite: GEOL 100 or GEOL 201. A survey of geologic phenomena, that characterized the Quaternary Period, with emphasis on the behavior of glaciers, glacial landforms and sediment and climatic implications. Two Saturday field trips required. Fee required.

GEOL 567 Volcanic Geology (3) (2 lecture, 3 laboratory) Prerequisite: GEOL 421 or GEOL 521 or consent of instructor. A study of volcanoes and volcanic processes and products. Emphasis on the origin, classification and interpretation of volcanic rocks and ejecta and volcanic structures and landforms. Fee required.

GEOL 581 Geologic Field Techniques (2) (4 laboratory) Prerequisites: GEOL 202 and GEOL 470. Techniques of obtaining and recording geological data in the field and constructing geological maps. Includes use of Brunton compass, plane table and aerial photographs and the preparation of geological reports. Fee required.

GEOL 582 Geology Field Camp (6) Prerequisites: GEOL 421 or GEOL 521, GEOL 470 or GEOL 570, GEOL 481 or GEOL 581. Six weeks of field geology including mapping of a variety of geological terrains using topographic maps, aerial photographs, plane table and other methods.

GEOL 590 Rocky Mountain Geology Seminar (2) Consent of instructor. Geology of selected Rocky Mountain area thoroughly investigated by means of four-day field trip to that area followed by seminar presentations on topics relevant to geology of specified area. Fee required.

GEOL 595 Special Topics in Geology (1-4) An opportunity to explore areas of geology beyond the scope of existing departmental offerings. Repeatable, under different subtitles.

GEOL 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GER - General Education Program

GER 101 Antiquity and the Classical Age (3) An introduction to the origins of our intellectual and artistic heritage through a study of texts and works of art from a wide variety of western and non-western cultures. Credit in General Education category 4 for Fine Arts or History or Literature.

GER 102 Evolutions of Cultures (3) Prerequisite: GER 101 or consent of instructor. An examination of the evolution of major traditions around the world from the third century to the sixteenth century through a study of representative texts and works of art. Credit in General Education category 4 for Fine Arts or History or Literature.

GER 103 The Modern World (3) Prerequisite: GER 102 or consent of instructor. A study of the development of the modern world from the early sixteenth century to the late nineteenth century using texts and works of art from around the world. Credit in General Education category 4 for Fine Arts or History or Literature.

GER 110 Science: A Way of Knowing (3) A general overview of the nature of science as a way of knowing. Includes discussion of the way science is actually conducted, through investigation, and applied to solve societal problems.

GER 120 Social Science Methods of Inquiry (3) A survey and critique of theoretical and methodological issues in the social sciences. Includes discussion of discipline-based representative theories and methods and their application to contemporary social issues.

GER 301 World of the Liberal Arts Capstone: The Present Age (3) Prerequisite: Completion of all other courses required for the pilot or consent of instructor. An interdisciplinary seminar exploring the bearing of important ideas in the liberal arts on the present age (i.e., from about 1900 to the present) and on our lives.

GER 302 Natural World Capstone: Global Systems (3) Prerequisite: Completion of all other courses required for the pilot or consent of instructor. An interdisciplinary seminar exploring science, global systems, and the way science can be used to develop solutions to global problems.

GER 303 Social World Capstone: Conflict, Cooperation and Change (3) Prerequisite: Completion of all other courses required for the pilot or consent of instructor. An interdisciplinary seminar exploring the convergence of theories, problems, methodologies, analytical skills, and ethics in the social world. Issues of gender, class and multiculturalism will be examined.

GER - German

GER 100 Beginning German (5) For students with no previous German. Conversational German using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

GER 102 Elementary German II (5) Prerequisite: GER 100 or equivalent. Continuation of 100 or 101. Conversational German using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

GER 116 Contemporary Germany (3) Become familiar with the culture and society of Germany with special emphasis on contemporary German issues. Conducted in English.

GER 150 Practicum in Contemporary Culture (1) Previous German required. Study and experience one facet of German culture such as a play, folk dances, film or music. Topic varies. Class conducted in German. Conversation is stressed. Repeatable, under different subtitles to a maximum of 2 credits.

GER 201 Intermediate German I (3) Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest. Conducted in German. Fee required.

GER 202 Intermediate German II (3) Prerequisite: GER 201 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest. Conducted in German. Fee required.

GER 300 Intermediate German Readings (1-3) Prerequisite: GER 201 or equivalent. Expand and develop reading and analytical skills in preparation for advanced German civilization and literature courses. Repeatable, maximum four credits. Conducted in German.

GER 301 German Conversation and Composition I (3) Prerequisite: GER 202 or equivalent. Develop fluency in writing and conversation and build vocabulary through discussion and compositions about everyday life in the German-speaking world. Conducted in German.

GER 302 German Conversation and Composition II (3) Prerequisite: GER 301 or equivalent. Continue to study the more complex elements of German syntax and sentence structure and acquire flexibility of expression in the written and spoken language. Conducted in German.

GER 311 German Civilization and Literature Survey I (3) Prerequisite: GER 202 or equivalent. Study of German civilization from prehistoric times up to the 19th century, including the historical, geographical, economic, political, artistic and literary development of Germany. Conducted in German.

GER 312 German Civilization and Literature Survey II (3) Prerequisite: GER 202 or equivalent. Study of German civilization from the Revolution of 1848 to the present, including the historical, economic, political, social, artistic and literary development of Germany. Conducted in German.

GER 350 Practicum in Teaching German (2) Participation in a teaching practicum and a seminar involving the critique and discussion of learning problems and day-to-day difficulties encountered in the German language classroom.

GER 405 Business German (3) Prerequisite: GER 202 or equivalent. Learn language skills for use in commercial, professional and government activities. Emphasize acquiring professional vocabulary, building reading and conversational skills and developing mechanics, style and translation of correspondence. Conducted in German.

GER 407 German for Oral Proficiency (3) Intermediate oral proficiency in German. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

GER 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GER 450 Studies in German Literature (3) Prerequisite: GER 202 or equivalent. Variable topics include analysis and discussion of poetry, prose, drama and literary periods from Middle Ages to present. Conducted in German. Repeatable, under different subtitles.

GER 475 Seminar in German Literature (2) Prerequisite: GER 302 or equivalent. Analyze and discuss German Literature pertaining to a specific topic. Prepare a research paper for class discussion and critique. Conducted in English. Repeatable, under different subtitles.

GER 501 Intensive German (4) Graduate status in German. Available only on Study Abroad. Emphasize active use of the language through formal classroom instruction. Special attention to idioms, nuances of German and language of the media. Conducted in German. Repeatable, maximum eight credits (if course content varies).

GER 502 Contemporary Life in Germany (3) Graduate status in German. Available only on Study Abroad. Examine the customs, institutions and mores of present-day Germany. Study the historical context of these traditions and how they reflect the German character. Conducted in German. Repeatable, maximum six credits (if course content varies).

GER 503 Practicum in Germany (4) Graduate status in German. Available only on Study Abroad. Experience work environment of the German business person, artisan, worker or professional through direct work experience. Conducted in German. Repeatable, maximum eight credits (if course content varies).

GER 504 Modern Germany (4) Graduate status in German. Available only on Study Abroad. Examine traditions, customs, institutions and mores of today's German-speaking Europe and how these reflect the national character of the people. Conducted in German. Repeatable, maximum eight credits (if course content varies).

GER 507 German for Oral Proficiency (3) Graduate status in German. Designed to develop oral proficiency by exposing students to advanced and superior linguistic functions, as defined in the American Council on the Teaching of Foreign Languages (ACTFL) proficiency guidelines for the Oral Proficiency Interview (OPI).

GER 508 Workshop (1-10) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

GER 511 German Civilization and Literature Survey I (3) Graduate status in German. Study of German civilization from prehistoric times up through the 19th century, including the historical, geographical, economic, artistic and literary development of Germany. Conducted in German.

GER 512 German Civilization and Literature Survey II (3) Graduate status in German. Study of German civilization from the Revolution of 1848 to the present, including the historical, economic, political, social, artistic and literary development of Germany. Conducted in German.

GER 513 Professional Renewal (1-10) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

GER 575 Seminar in German Literature (2) Graduate status in German. Analyze and discuss German literature pertaining to a specific topic. Prepare a research paper for class discussion and critique. Conducted in English. Repeatable, under different subtitles.

GER 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GERO - Gerontology

GERO 205 Introduction to Gerontology (3) Survey of the field of gerontology with attention to the physical, psychological, social, economic and cross-cultural aspects of aging.

GERO 394 Practicum in Gerontology (1-4) Make application to the department before registration. Repeatable, maximum eight credits.

GERO 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GERO 460 Community Resources for the Elderly (4) Field experience required. Review service needs of older persons and existing community resources. Evaluate the full continuum of long-term care in relation to program models, service gaps and funding mechanisms.

GERO 465 Management Concepts in Aging Services (3) Examines basic concepts of management and administration of human service organizations. Emphasizes principles and practices currently used in public, private nonprofit and proprietary aging programs.

GERO 490 Senior Seminar and Research in Gerontology (3) Traces history and current status of the field of Gerontology through the integration of previous coursework. Emphasizes research and research methodology. Explores career goals and internship opportunities.

GERO 492 Undergraduate Internship in Gerontology (6-15) Completion of 21 hours of required gerontology courses. Only 12 credits may be counted towards degree program. S/U graded. Repeatable, maximum 15 credits.

GERO 495 Special Topics in Gerontology (1-4) Course designed to investigate specific aspect of Gerontology. Repeatable, under different subtitles to a maximum of six credits.

GERO 560 Community Resources for the Elderly (4) Field placement required. Review service needs of older persons and existing community resources. Evaluate the continuum of long-term care in relation to programs models, service gaps and funding mechanisms.

GERO 565 Management Concepts for Aging Services (3) Examines basic concepts of management and administration of human service organizations. Emphasizes principles and practices currently used in public, private nonprofit and proprietary aging programs.

GERO 595 Special Topics in Gerontology (1-4) Course designed to investigate specific aspect of Gerontology. Repeatable, under different subtitles to a maximum of six credits.

GERO 622 Directed Study in Gerontology (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

GERO 625 Psychosocial Aspects of Aging (3) Applies developmental theories to explain concepts of aging. Emphasizes current research in the exploration of issues facing older adults.

GERO 630 Intervention Strategies with the Elderly (3) Analyze major intervention strategies and techniques for utilization with older adults. Emphasizes individual, group and paraprofessional systems. Classroom practice of actual treatment techniques.

GERO 635 Social Policies and the Aged (3) Traces history and current status of major policies that benefit elderly. Reviews legislation, levels of policy-making and policy concerns of older population. Includes recent policy changes and policy directions.

GERO 640 Health Aspects of Gerontology (3) Identifies major health problems, concerns and practices of the elderly. Examines health care policies, financing, health promotion and wellness concepts.

GERO 650 Personnel Practices for Aging Programs (3) Surveys basic personnel management practices: employee recruitment, selection, performance enhancement, performance review and promotion. Includes issues of volunteers, older workers and legal aspects of human resource management.

GERO 655 Program Planning and Evaluation in Gerontology (3) Survey of basic concepts used in the development and implementation of aging programs. Emphasizes methods and skills needed for the assessment, development and evaluation of programs.

GERO 660 Financial Management and Budgeting for Aging Programs (3) Overview of financial and budgeting functions within human services. Emphasizes public and private non-profits. Directed to non-accountants. Develop basic skills in financial control and fundraising.

GERO 665 Grant Development and Administration (3) Overview of proposal planning and grant development process. Application of skills in identifying funding options, program planning, proposal writing, budgeting and establishing controls for grant administration.

GERO 692 Graduate Internship in Gerontology (6-15) S/U graded. Repeatable, maximum 15 credits. Only 12 credits may be counted towards degree program.

GERO 694 Practicum in Gerontology (1-4) Make application to the department before registration. Repeatable, maximum eight credits.

GERO 699 Thesis (1-6) S/U graded. Repeatable, no limitations.

HISP - Hispanic Studies

HISP 101 Introduction to Mexican American Studies (3) A general course designed to provide the student with an understanding of Mexican American culture. Taught in English.

HISP 102 Hispanic Cultures in the United States (3) A study of the development of cultural patterns among the three largest Hispanic communities in this country: Chicanos, Puerto Ricans and Cuban-Americans — their differences and commonalities. Taught in English.

HISP 110 Contemporary Chicano Literature (3) Course provides students with basic understanding of literature written by outstanding Chicano authors. Focus is on major works contemporary fiction, theater, poetry, autobiography. Socio-historical context plus cultural images, style, structure, technique, themes studied.

HISP 111 Introduction to Hispanic Literature (3) An introduction to prominent contemporary writers. Includes theatre, novel, short story and poetry in translation. Works of Lorca, Matute, Unamuno, Borges, Rulfo, Garcia Marquez, Anaya. Taught in English.

HISP 121 Spanish Civilization and Culture (3) Introduction to the general trends of Spanish civilization and culture. Historical, economical, political and artistic developments of Spain from prehistoric times to the present. Taught in English.

HISP 131 Latin American Civilization and Culture (3) Introduction to the general trends of Latin American civilization and culture. Historical, economic, political and artistic development from the pre-Columbian period to the present. Taught in English.

HISP 141 Mexican Civilization and Culture (3)

A study of Mexican civilization and culture. Surveys historical, political and artistic developments from early times to present. Emphasis on lifestyle of the contemporary Mexican. Taught in English.

HISP 300 Social Stratification in the Mexican-American Community (3)

Examines the variables affecting the social stratification of the Mexican-American community in the Anglo-American society, social class differences in Mexican-American communities and Mexican-American social mobility. Taught in English.

HISP 320 La Chicana (3)

Chicana presented through variety of historical, psychological, social, political issues. Students expected to integrate theory and empirical data, personal experiences to identify and discuss many variables that impact contemporary Chicana.

HISP 325 History of the Chicano in the Southwest (3)

Prerequisite: HISP 101 or consent of instructor. Examines the history and heritage of the contemporary Chicano or Mexican-American. Deals with contributions of the Spaniard, the Indian and the Mestizo. Taught in English.

HISP 395 Historical, Philosophical, Legal and Cultural Dimensions of Bilingual Education (3)

Designed to examine the linguistic, political and cultural assumptions underlying American public education. Taught in English.

HISP 400 Methods and Assessment for Bilingual Education and ESL (3)

Prepare teachers to work/meet linguistic needs of children in bilingual/ESL classrooms. Learn theory, implement corresponding instructional techniques, understand cultural/linguistic forces that affect children, know appropriate assessment instruments, techniques. Required for K-6 or 5-9 Bilingual endorsement.

HISP 410 Assessment and Diagnostic Testing in Bilingual Classrooms (3)

Designed to give bilingual and ESL teachers expertise in the area of assessment and diagnostic testing.

HISP 414 Contemporary Chicano Issues (3)

A study of external and internal issues affecting the Chicano community.

HISP 422 Directed Studies (1-3)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HISP 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

HISP 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

HISP 622 Directed Studies (1-3)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HIST - History**HIST 100 Survey of American History from its Beginnings to 1877 (3)**

Survey of American history through Reconstruction to examine efforts to found New World communities, gain an American identity, secure independence and to define and secure the union under a federal government.

HIST 101 Survey of American History from 1877 to the Present (3)

Survey of American history from Reconstruction to the present to examine geographical expansion, the rise of industrial and military power, five American wars, reform cycles and the shaping of modern America.

HIST 110 African Civilization (3)

An introduction to the society, economy, culture and politics of traditional Africa from the Empire of Ghana to the European conquest in the nineteenth century.

HIST 112 Asian Civilization I: From Prehistory to the 1600s (3)

Introduction to the historical development of pre-modern cultures in East, South and Southeast Asia.

HIST 113 Asian Civilization II: The Modern Transformation (3)

Examination of the modern transformation of East, South and Southeast Asian societies.

HIST 118 History of Mexico (3)

Mexican history from pre-Columbian times to the present emphasizing 19th and 20th centuries. Covers socioeconomic, political and cultural change.

HIST 120 Western Civilization from Ancient Greece to 1689 (3)

A survey of Western Civilization from ancient Greece to the Glorious Revolution.

HIST 121 Western Civilization from 1689 to the Present (3)

A survey of Western Civilization from the Glorious Revolution to the present.

HIST 130 Middle East History I (3)

The Middle East from the rise of Islam to the fall of Baghdad in 1258 with an emphasis on political and cultural achievements.

HIST 131 Middle East History II (3)

The Middle East from the Mongols to the present with an emphasis on Ottoman institutions and European imperialism.

HIST 216 History of Spain and Portugal (3)

A survey of Iberian history from the Reconquista to the post-Franco era emphasizing political and cultural developments.

HIST 217 Europe and Islam: Myth and Reality (3)

With reference to literature, art, film and memoir, this course examines the changing ways in which European society (Christendom) has viewed its Middle Eastern counterpart (Islam) over the centuries and vice versa.

HIST 218 The Modern Middle East (3)

Chronologically surveys the political and social history of the modern Middle East over the past two hundred years with an emphasis on the Arab states, Iran and Turkey.

HIST 224 History of Colorado (3)

A survey of Colorado history from prehistoric times to the post-World War II era.

HIST 230 Class and Culture in America (3)

An introduction to the role of class distinctions and cultural pluralism in American life. Emphasis is on timeline of culture and class from 1492 to the present.

HIST 240 Modern America, 1914-Present (3)

A tracing of American history typically since World War I, emphasizing foreign policy, presidential politics, civil rights, the growth of the welfare state and the changing American character.

HIST 250 United States Military History, 1775-Present (3)

Survey of American military and naval history from the Revolution to the present, with an emphasis on the strategies, tactics and technologies employed.

HIST 260 History of Science and Technology of the West (3)

Origins and development of science and technology from antiquity to the 20th century with the emphasis on the intellectual, social and cultural implications.

HIST 262 American Cultural History (3)

Prerequisites: HIST 100 or HIST 101. An examination of the growth and development of American thought and culture by surveying major works of literature and examples of popular culture in their historical context.

HIST 263 European Intellectual History (3)

A consideration in depth of selected topics in European intellectual history from the Enlightenment to the present.

HIST 265 Women in Europe to 1700 (3)

This survey of the history of women from circa 1200 B.C. - 1700 A.D. examines western institutions and intellectual and religious traditions that controlled and shaped women's lives.

HIST 266 Women in Europe, 1700 to the Present (3)

Women's roles in history, and the opportunities and obstacles offered to women by European social, cultural, and political institutions from the Enlightenment to the present.

HIST 267 Age of Revolution Since the 17th Century (3)

An examination of selected political and ideological revolutionary upheavals since the 17th century. Emphasis will be on comparative analysis and applicability of this analysis to 20th century revolution or liberation movements.

HIST 283 Russian Civilization (3)

Development of Russian culture and society from the beginning to the present, with emphasis on the late 19th and 20th centuries.

HIST 286 History of Imperial Russia, 1700-1917 (3)

A history of imperial Russia from the reign of Peter the Great to the coming of the Russian revolutions and the end of the Romanov Dynasty in 1917.

HIST 290 American Immigration (3)

An examination of immigration to the United States, emphasizing 19th and 20th centuries. Includes Irish, English, German, Italian, Scandinavian, Jewish, Asian and Latin American immigrants as well as nativist and immigration legislation.

HIST 307 History of China to 1840 (3)

A study of the development of Chinese civilization from antiquity to the Opium War, stressing social, political and cultural change.

HIST 309 Modern Southeast Asia (3)

An analysis of the historical experience of Vietnamese, Filipinos, Indonesians, Thais and others caught between China/India, religions of the West and East, colonialism/nationalism and traditional vs. modern lifestyles.

HIST 310 Modern China (3)

An analysis of the Chinese experience from the impact of Western imperialism in the mid-19th century to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

HIST 311 Modern Japan (3)

An historical analysis of the late Tokugawa period to the present. Emphasizes internal changes in political, social, economic and cultural institutions.

HIST 313 India (3)

A study of the layers in Indian history, including the Indus Civilization, Brahmanic and Buddhist culture, the Gupta classical age, Islam's impact, Mughal India, the British Raj, the nationalist period and independent India.

HIST 314 History of Latin America to 1855 (3) A survey of Spanish America and Brazil from pre-Columbian civilizations to 1855. Covers conquest, church, Indian labor, administration, independence and beginning of nations.

HIST 315 History of Latin America: 1855 to the Present (3) A thematic study of personalism, nationalism, militarism, foreign influences and socioeconomic classes with particular reference to Nicaragua, Cuba, Chile, Argentina and Brazil.

HIST 317 Themes in Middle Eastern History (3) Designed to emphasize certain select topics in Middle Eastern history, ranging from ancient origins and development of religions to Arab nationalism and Islamic fundamentalism as a background for today's challenges.

HIST 318 Modern Africa (3) A study of the social, political, economic and cultural transformation of 20th century Africa.

HIST 320 Colonial America, 1492-1763 (3) An examination of the European background of colonization, the founding of New World Communities, the growth of an Anglo-American identity and the growing tension and conflict between England and her colonies.

HIST 321 The New American Nation, 1763-1800 (3) A study of the background of the American Revolution, the Revolution itself, the Confederation, the framing of the Federal Constitution and the social, economic, political and religious patterns of the Early Republic.

HIST 327 The Early American West (3) Divides the American frontier into two parts: the Spanish and English language frontiers. Included is analysis of themes of environment, culture and perception of the frontier before 1846.

HIST 328 The United States West Since 1846 (3) Analyzes the themes of modernization, cultural change, environment and perception that arose from the American presence in the West after the war with Mexico, including the 20th century.

HIST 329 American Indian History (3) Covers the American Indian experience from prehistory to the present, emphasizing themes of environment, diversity and perception of native peoples by outside observers.

HIST 330 Age of Jackson (3) An examination of post-1815 nationalism, the political and economic trends in the Jacksonian Era and the ramifications of the expansionist, religious, sectionalist and reform movements, which characterized the period.

HIST 331 Civil War and Reconstruction (3) Major topics studied include political upheavals in the 1850s, the growth of southern nationalism, attempts at compromising constitutional differences, the Civil War and problems in reconstructing the Union.

HIST 332 United States Diplomatic History to 1914 (3) A survey of American foreign policy from the War for Independence to World War I, emphasizing territorial expansion and the emergence of the United States as a great world power.

HIST 333 United States Diplomatic History Since 1914 (3) A survey of American foreign policy from World War I to the present, emphasizing the problems of war and peace and the internationalist-isolationist conflict in the 20th century.

HIST 337 History of American Education (3) The development of American education from colonial times to the present, focusing on the European roots of the educational system to its impact on America's character.

HIST 340 American Constitutional History to 1870 (3) An analysis of the origins of the constitution, differences over constitutional philosophy and the drafting, ratification and subsequent shaping of the federal constitution to 1870 by executive, legislative and judicial actions.

HIST 341 American Constitutional History from 1870 (3) A thematic survey of the development of constitutional interpretation from the post-Civil War era to the present by examining major cases in their historical context.

HIST 345 Baseball and American Society, 1840-1992 (3) Examines American society from the perspective of professional baseball and its development. It deals with the rise of professionalism as well as changes in racial attitudes, technology and business practices.

HIST 347 United States Women's History to 1877 (3) A survey of women in the United States to 1877. Examines gender ideologies, population movements, patterns of work, reform activities, and early women's rights from Colonization through Reconstruction.

HIST 348 United States Women's History Since 1877 (3) A survey of women in the United States since 1877. Examines gender ideologies, population movements, patterns of work, reform activities, and feminist politics from Reconstruction to the present.

HIST 350 Industrial America (3) Focus on the industrial transformation of the United States during the late nineteenth century. The economic developments as well as the political, social and cultural ones will be examined.

HIST 352 History of World War II (3) A survey of World War II from the rise of the totalitarian states to the dropping of the atomic bombs, with an emphasis on American military and naval operations.

HIST 354 The United States and the Vietnam Wars (3) Prerequisite: HIST 101. Through a variety of readings, the course will concentrate on the political, social and cultural importance of Vietnam for American history from 1945 to 1975 and beyond.

HIST 361 History of Classical Greece and Rome (3) A survey of Greek and Roman civilization from the origins of Greece to the decline of Rome. Emphasis will be placed on their cultural and intellectual heritage.

HIST 363 Medieval History (3) A survey of the Christian, Islamic, Greek and Jewish civilizations from the decline of Rome to the Renaissance (500-1500).

HIST 367 History of the Renaissance and Reformations (3) A survey of the social, economic, religious and cultural developments in Western Europe from approximately 1300 to 1600.

HIST 368 Tudor-Stuart England, 1485-1689 (3) An investigation of the history of England, Scotland, Wales and Ireland from 1485 to 1689, focusing on political, constitutional, social and cultural developments.

HIST 369 Britain in the Modern Age, 1689 to the Present (3) An investigation of the emergence of modern Britain and Ireland through the growth of Parliament/Cabinet government, the development of a complex society and economy and the flowering of culture.

HIST 374 Old Regime, 1648-1789 (3) An examination of Western European political, economic, intellectual and cultural developments, beginning with the Peace of Westphalia and ending with the outbreak of the French Revolution. Focus is France in its greatest century.

HIST 375 France in Revolution, 1774-1848 (3) A study of the causes and consequences of the French Revolution of 1789 and its impact on 19th century France and Europe. After Napoleon, the course will analyze strains of politics, intellectual life and society leading to 1848 upheaval.

HIST 376 France from 1848 (3) A study of the significant personalities and political and constitutional issues in French history from the Revolution of 1848 to the present, examining the Second Republic, Second Empire, Third, Fourth and Fifth Republics.

HIST 382 Hitler's Germany 1890-1945 (3) The recent history of Germany focusing on the forces, events and individuals that gave rise to National Socialism and contributed to the decline of Europe into war and revolution.

HIST 385 History of the Holocaust, 1933 to the Present (3) An examination of the intellectual and racial antecedents of the Holocaust, its bureaucracy, operating mechanics for murder and the steps taken toward the "final solution," the elimination of European Jewry.

HIST 386 Twentieth Century Russia (3) A detailed consideration of the establishment of the Soviet Union, its dissolution, and the contemporary role of Russia in the world.

HIST 387 Russian Intellectual-Cultural History, 1700-Present (3) A detailed discussion of Russian-Soviet intellectual and cultural history, 1700 to the present at the advanced level.

HIST 389 Modern Europe (3) A consideration in depth of European historical development from 1815 to the present, focusing on political, diplomatic and economic matters. Repeatable, under different subtitles to a maximum of nine credits.

HIST 390 The World Wars, 1914-1945 (3) A course on the two great European wars of the 20th century, emphasizing the interaction between political objectives, social resources and military strategy.

HIST 397 History Colloquium (3) Introduction to major historical and interdisciplinary works; discussion of their historiographical significance.

HIST 422 Directed Study (1-6) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HIST 480 Senior Seminar (3) Seniors. Students will examine a specific topic and write a critical essay incorporating research, historical methodology, analysis and expository skills. Repeatable, under different subtitles to a maximum of six credits.

HIST 492 Internship (1-3) Independent, individualized projects jointly directed by faculty supervisors and staff of cooperating office or institution. Repeatable, maximum six credits.

HIST 495 Topics in American History (3) Seniors. In-depth examination of various aspects related to American social and cultural history since the American Revolution. Repeatable, under different subtitles to a maximum of six credits.

HIST 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

HIST 509 Modern Southeast Asia (3) An analysis of the historical experience of Vietnamese, Filipinos, Indonesians, Thais and others caught between China/India, religions of the West and East, colonialism/nationalism and traditional vs. modern lifestyles.

HIST 510 Modern China (3) An analysis of the Chinese experience from the impact of Western imperialism in the mid-19th century to the present. Emphasizes internal changes in China's political, social, economic and cultural institutions.

HIST 511 Modern Japan (3) An historical analysis of the late Tokugawa period to the present. Emphasizes internal changes in political, social, economic and cultural institutions.

HIST 512 Seminar in Asian History (3) Investigates selected topics in the history of China, Japan, India and Southeast Asia. Repeatable, under different subtitles to a maximum of six credits.

HIST 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

HIST 514 History of Latin America to 1855 (3) A survey of Spanish America and Brazil from pre-Columbian civilizations to 1855. Covers conquest, church, Indian labor, administration, independence and beginning of nations.

HIST 515 History of Latin America: 1855 to the Present (3) A thematic study of personalism, nationalism, militarism, foreign influences and socioeconomic classes with particular reference to Nicaragua, Cuba, Chile, Argentina and Brazil.

HIST 516 Seminar in Latin American History (3) Investigates selected topics in Latin American history. May focus on colonial or post-independence period. May be taken twice under different subtitles.

HIST 518 Modern Africa (3) A study of central issues of modern African history, including social transformation, the emergence of the nation-state, economic underdevelopment and the problem of southern Africa.

HIST 520 Advanced Study in American Colonial History (3) Investigates topics in the history of colonial and revolutionary America through direct research and/or readings.

HIST 522 Seminar in Southwest History (3) Focus of seminar will be on research and writing topics for the American Southwest from the Spanish period through the territorial period to the statehood period when full admission secured.

HIST 529 American Indian History (3) Covers the American Indian experience from prehistory to the present, emphasizing themes of environment, diversity and perception of native peoples by outside observers.

HIST 530 Topics in American History (3) Investigation of a topic in American history. Content depends on instructor. Repeatable, under different subtitles to a maximum of nine credits.

HIST 533 United States Diplomatic History Since 1914 (3) A survey of American foreign policy from World War I to the present, emphasizing the problems of war and peace and the internationalist-isolationist conflict in the 20th century.

HIST 535 Advanced Placement Program-US History (1-3) Intensive course in United States historiography and interpretation, designed for secondary school teachers teaching advanced placement courses in United States history. Includes writing of model syllabi and extensive historical analysis. S/U graded. Unlimited repeatability.

HIST 536 Advanced Placement Program in European History (1-3) Intensive course in European historiography and interpretation, designed for secondary school teachers teaching advanced placement courses in European history. Includes writing of model syllabi and extensive historical analysis and assessment. S/U graded. Unlimited repeatability.

HIST 537 Advanced Study in the History of American Education (3) Review of the development of American education from colonial times to the present, focusing on the European roots of the educational system to its impact on America's character.

HIST 544 Seminar in European Intellectual History (3) A consideration of selected topics in European Intellectual History from the Enlightenment to the present in a seminar format.

HIST 550 Industrial America (3) Focus on the industrial transformation of the United States during the late nineteenth century. The economic developments as well as the political, social and cultural ones will be examined.

HIST 552 History of World War II (3) A survey of World War II from the rise of the totalitarian states to the dropping of the atomic bombs, with an emphasis on American military and naval operations.

HIST 557 Seminar in Medieval and Renaissance History (3) A seminar for advanced undergraduate and graduate students that will investigate select topics in medieval and renaissance history through research and readings.

HIST 589 Modern Europe (3) A consideration in depth of European historical development from 1815 to the present, focusing on political, diplomatic and economic matters. Repeatable, under different subtitles to a maximum of nine credits.

HIST 600 Introduction to Graduate Historical Study (3) Examines the nature of history, historical research and the writing of history.

HIST 622 Directed Studies (1-6) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HIST 699 Thesis (1-6) Optional for Master of Arts programs on recommendation of the major advisor. S/U graded. Repeatable, no limitations.

HON - Honors Program

HON 100 Honors Connections Seminar I (2) A variable content seminar for Honors students only, emphasizing the connections between areas of knowledge such as the Sciences, Arts, Philosophy, History, Literature and Sociology.

HON 200 Honors Connections Seminar II (2) A variable content seminar for Honors students only that will engage them in a concentrated analysis of their values in the context of their times.

HON 351 Junior Honors Seminar (1-2) Consent of instructor. A seminar or tutorial required of juniors in honors. Provides enrichment work in the student's discipline of choice and a start on the senior honors research thesis. Repeatable, maximum 2 credits.

HON 451 Senior Honors Research Thesis (1-4) Consent of instructor. Different sections are offered by different departments. Required for senior participants in the Honors Program. Repeatable, maximum four credits.

HRS - Human Rehabilitative Services

HRS 290 Introduction to Human Rehabilitative Services (3) Overview of human rehabilitative service delivery systems such as rehabilitation, social services, mental health and corrections. Orientation to current practices of the rehabilitative services professional.

HRS 308 Workshop in Human Services (1-4) Course designed to investigate a specific aspect of Human Services. Repeatable, under different subtitles to a maximum of nine credits.

HRS 380 Rehabilitation Principles and Case Management (3) Introduction to comprehensive rehabilitation history, philosophy, legislation and process. Details role and functions of case management and coordination with community, government, industry.

HRS 385 Working with Families in Rehabilitation (3) Prerequisite: HRS 290 or consent of instructor. Provides an analysis of relevant issues and critical problems concerning the effective utilization of family members in rehabilitation. Concerns of families in different cultures are addressed.

HRS 386 Community Integrated Employment (3) Emphasis will be on supported employment programs (from sheltered workshops to community) and transition from school to work.

HRS 391 Independent Living in Rehabilitation (3) In-depth study of independent living center programs and concepts. Focus on demonstration and research as applied to people with disabilities.

HRS 394 Practicum in Human Services (1-4) Supervised experience in service agency. Supervisor evaluation and written report describing agency experience must be filed with instructor. S/U graded. Repeatable, maximum eight credits.

HRS 397 Rehabilitation of the Substance Abuser (3) Psychological, biological, sociological and cultural problems related to substance abuse, effects on family and adult children of alcoholics. Emphasis on treatment, multidimensional assessment program development and community resources.

HRS 422 Directed Studies in Human Rehabilitation (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HRS 470 Client Assessment (3) Basic principles and practices utilized in vocational assessment. Emphasis on the unique interpretation necessary for handicapping conditions and special adaptations of assessment tools for persons with disabilities.

HRS 480 Human Service Helping Skills (3) Study and develop effective interpersonal communications and human relations skills for human service workers.

HRS 485 Medical/Psychological Aspects of Disability for Human Service Workers (3) Juniors or above. An introduction to the nature of specific disabling conditions as well as various disease entities common among human service clients.

HRS 490 Career Planning and Placement (3) Investigate career development process and sources of occupational information. Focus on developing skills in job development, job analysis and job placement through self-exploration.

HRS 492 Clinical Internship (1-18) Application to Department one semester before registration. Supervised experience in service agency. Time participation in an approved setting. Minimum of 600 clock hours over the 18 credit hours. S/U graded. Repeatable, maximum 18 credits.

HRS 495 Special Topics in Rehabilitation (1-4) Course designed to investigate a specific aspect of rehabilitation. Repeatable, maximum nine credits.

HRS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

HRS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

HRS 580 Rehabilitation Principles and Case Management (3) Introduction to comprehensive rehabilitation history, philosophy, legislation and process. Details role and functions of case management and coordination with community, government and industry.

HRS 581 Vocational Evaluation and Assessment of People with Disabilities (3) Basic principles in vocational evaluation and assessment of persons with disabilities. Skills development in use of various testing instruments, methods and effective interpretation of results.

HRS 585 Occupation Information and Job Placement (3) Presents theories of vocational choice and use of labor market information. Identifies job analysis, development and placement practices for successful transitions of handicapped client to gainful employment.

HRS 586 Community Integrated Employment (3) Emphasis will be on supported employment programs (from sheltered workshops to community) and transition from school to work.

HRS 590 Rehabilitation Services in Facilities and the Private Sector (3) Prepares counselors for rehabilitation service delivery in private-for-profit rehabilitation programs, community service facilities, business and industry. Addresses legal issues, worker compensation, expert witness, transition, supported work and ethics.

HRS 591 Independent Living in Rehabilitation (3) In-depth study of independent living center programs and concepts. Focus on demonstration and research as applied to people with disabilities.

HRS 595 Special Topics in Rehabilitation (1-4) Course designed to investigate a specific aspect of rehabilitation. Repeatable, under different subtitles, maximum of nine credits.

HRS 597 Counseling and Treatment of the Substance Abuser (3) This course will provide advanced work in the area of substance abuse treatment and counseling. Instruction in treatment modalities, explore research topics and build counseling techniques appropriate for this population.

HRS 601 Practicum in Rehabilitation (1-4) Supervised professional activity in student's major field; approximately 37 clock hours of work per credit. Two copies of well written paper must be filed before credit is given. Unlimited repeatability.

HRS 605 Medical Aspects of Disability (3) Appraises medical implications in rehabilitation: nature, cause, treatment, limitation, progress, social and occupational aspects of injury, medical terminology and the role of medical specialist.

HRS 606 Psychosocial Aspects of Disability (3) Develop sensitive awareness of handicapping nature of disabilities and relationship between disability and psychological, social and vocational aspects of successful adjustments.

HRS 610 Interpretation and Evaluation of Behavioral Research (3) Understanding of applications of appropriate statistical techniques and necessary skills for interpretation and evaluation of research in Human Services. Emphasizes basic concepts, design and utilization of behavioral research.

HRS 611 Vocational Evaluation Planning and Reporting (3) Prerequisite: HRS 581. Consent of Instructor. Principles and techniques of planning in the vocational evaluation process and integration of assessment data and behavioral observations in report writing.

HRS 612 Seminar in Vocational Evaluation Systems (3) Prerequisite: HRS 581 Examination of various vocational evaluation systems, their uses and limitations in assessing vocational potential of the handicapped.

HRS 622 Directed Studies in Human Rehabilitation (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

HRS 630 Human Services Counseling Theories and Techniques (3) Analyze counseling theories as they are applied to human services. Develop basic counseling skills.

HRS 631 Group Processes in Rehabilitation (3) An integrated perspective of the stages of groups, basic concepts and goals of groups with rehabilitation clients.

HRS 635 Cultural and Family Concerns in Rehabilitation (3) Provides theoretical and practical knowledge necessary to effectively counsel families who have disabled family members. Concerns of disabled persons in various cultures are addressed with emphasis on appropriate family intervention.

HRS 650 Human Resources System (3) Addresses leadership issues in human resource planning, management and development necessary for achieving responsible change. Examines various organizational components and their interrelationship and interdependence with other organization systems.

HRS 660 Advanced Seminar in Client Assessment (3) Consent of instructor. Practices individual client assessment, particularly vocational implications of assessment techniques and the application of information in client treatment plans.

HRS 692 Clinical Internship in Rehabilitation (1-18) Prerequisites: HRS 630, HRS 694. Field experience for qualified human service major at department approved location. Written application to department at least one semester before registration. S/U graded. Repeatable, maximum 18 credits.

HRS 693 Practicum in Vocational Evaluation (6) Prerequisite: HRS 581. Consent of instructor. Meets minimum of 12 hours per week. Qualified human services majors engage in vocational evaluation activities in department's clinic under the supervision of one or more university staff. S/U graded. Fee required.

HRS 694 Supervised Counseling in Human Services (6) Prerequisite: HRS 630. Meets minimum of 12 hours per week. Qualified human services majors engage in counseling interviews and activities under the supervision of one or more university staff members. S/U graded. Fee required.

HRS 755 Supervised Practicum in College Teaching (3) Majors only. Experiences in observation and supervised practice in teaching at college or university level. Repeatable, maximum nine credits.

HRS 757 Advanced Seminar in Rehabilitation Administration (3) Majors only. Students will receive supervised experience in administration, program planning, evaluation and grant writing. Approximately 150 clock hours per semester are required for three credits. Repeatable, maximum nine credits.

HRS 758 Advanced Seminar in Rehabilitation Research (3) Majors only. Students will receive supervised experience in rehabilitation research, including research methods and design. Final research paper of publishable quality required. Repeatable, maximum nine credits.

HRS 759 Advanced Practicum in Rehabilitation Counseling Supervision (3) Majors only. Students receive supervised experience in studying problems in training rehabilitation counselors. Approximately 150 clock hours per semester required for three credits. Repeatable, maximum nine credits.

HRS 760 Professional Development Seminar in Rehabilitation (1) Majors only. Admission to doctoral program required or consent of instructor. Provide forum for development and discussion of research, professional issues, trends field human rehabilitation. Repeatable, maximum four credits.

HRS 794 Advanced Clinical Internship (1-6) This supervised rehabilitation counseling internship is structured to philosophy, functions and clientele of agency and interest, background and capabilities of individual students. Repeatable, maximum six credits.

HRS 797 Doctoral Proposal Research (1-4) Majors only. Required of doctoral students. Students must earn 4 hours of credit towards doctoral degrees before candidacy. S/U graded. Repeatable, maximum four credits.

HRS 799 Doctoral Dissertation (1-12) Majors only. Required of doctoral candidates. Students must earn 12 hours of dissertation credit for doctoral requirements. S/U graded. Repeatable, no limitations.

HUM - Humanities

HUM 111 The Classical Period Through the Middle Ages (3) Study values, beliefs, customs of the period through literature, visual arts, philosophy, mythology and history.

HUM 120 Studies in Film (3) An approach to film emphasizing genre, theme, director or historical period. Repeatable, under different subtitles to a maximum of nine credits.

HUM 320 The Art of the Film (3) An introduction to the major creative filmmakers; Griffith, Welles, Bergman, Antonioni, etc. and to their characteristic technical and thematic concerns.

HUM 331 Images of Women in Literature and the Arts (3) Investigation of stereotypes, dreams, roles and goals of women manifested in creative works by and about women.

HUM 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ID - Interdisciplinary Studies

ID 308 Workshop (1-3) Study problems in education, with area covered in any one workshop determined by title. Repeatable, under different subtitles.

ID 420 Legal Research and Writing (3) Develop knowledge, skills and attitudes for legal research and writing. Emphasis is on practical skills which are helpful to think like an attorney about the law.

ID 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

ID 513 Professional Renewal (1-4) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

ID 702 The Teacher in the College Community (3) A survey of current issues in higher education, the role of faculty in collegiate settings and typical instructional problems. Required of all Doctor of Arts candidates in mathematics and music. Should be taken during the first year of graduate study.

JAPN - Japanese

Note: Not all Japanese courses are offered on a regular basis. Consult the Department of Foreign Languages for current offerings.

JAPN 101 Beginning Japanese (5) For students with no previous Japanese. Conversational Japanese using oral techniques with reading and writing skills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

JAPN 102 Elementary Japanese II (5) Prerequisite: JAPN 101. Continuation of JAPN 101. Conversational Japanese using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

JAPN 105 Conversational Japanese I (3) For students with no previous Japanese. Develop a basic conversational ability. Emphasis on language use in business or tourism. Discussion of important aspects of Japanese culture and thought.

JAPN 106 Conversational Japanese II (3) Prerequisite: JAPN 105. Continuation of JAPN 105. Basic Conversational Japanese with emphasis on language use in business or tourism. Discussion of important aspects of Japanese culture and thought.

JAPN 116 Contemporary Japan (3) Become familiar with the culture and society of Japan with special emphasis on contemporary Japanese issues. Conducted in English.

JAPN 201 Intermediate Japanese I (3) Prerequisite: JAPN 102 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural interest. Conducted in Japanese. Fee required.

JAPN 202 Intermediate Japanese II (3) Prerequisite: JAPN 201 or equivalent. Review language structures and develop reading and writing skills. Gain vocabulary through conversational practice on topics of cultural and literary interest. Conducted in Japanese. Fee required.

JAPN 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hours.) Repeatable, maximum concurrent enrollment is two times.

JMC - Journalism and Mass Communications

JMC 100 Introduction to Journalism and Mass Communications (3) The economic, social and legal forces shaping media content today; how our perception of mass media is a reflection of their history and current function.

JMC 210 Newsriting (3) Prerequisite: Functional typewriting skill (25 wpm) . Consent of instructor. Sharpen skills and judgment in reporting and writing for broadcast and non-broadcast mass media. Fee required.

JMC 241 Radio Production and Broadcast Announcing (3) Majors only. Learn to write and produce basic radio programming and to effectively announce over radio and television. Fee required.

JMC 340 Broadcast Newsriting (3) Prerequisites: JMC 210. Majors only. News for the ear and for the television camera eye; radio, television and cable newscasts. Fee required.

JMC 342 Television Production (4) Consent of instructor. Majors only. Learn the terminology, procedures and skills of basic studio television production. Application of techniques to the production of programs. Fee required.

JMC 345 Broadcast Advertising and Promotion (3) Majors only. The skills and techniques necessary in the preparation and production of broadcast advertising and promotion developed through practical training in the writing of commercials and announcements. Fee required.

JMC 350 News Editing and Layout (3) Prerequisite: JMC 210. Majors only. Copy editing, headline writing and the graphic concepts needed to produce attractive and readable designs for print media. Application of skills involved in the selection and judgment of news. Fee required.

JMC 380 Public Relations (3) Majors only. Consent of instructor needed for recreation majors. The concepts, procedures and theories behind public relations work. Examine current practices in business, government and other settings.

JMC 385 Media Planning and Research (3) Majors only. A managerial approach to the study of media research and media planning strategies. Methods and procedures used in the planning and evaluation of the media mix will be examined.

JMC 387 Advertising Copywriting (3) Prerequisite: JMC 210. Majors only. Advertising from the copywriter's standpoint; planning and writing creative strategies. Create copy for broadcast and print media and learn illustration and layout concepts.

JMC 390 Impact of Mass Communications on Society (3) Prerequisite: JMC 100. The effects of media content and media industries on contemporary society; evaluation of current media criticism and the role of media in society.

JMC 391 Literary Journalism (3) Juniors or above. Explores the writings of journalists, relating major themes in journalism and fiction. Questions of narrative form are stressed.

JMC 397 Journalism History (3) The growth and development of major issues and principles of American culture as reflected in the history, writings, professional standards and social contributions of leading men and women in the mass media.

JMC 404 Practicum (1-3) Gain experience with behind-the-scenes set-up and preparation of labs, special productions and individual projects; assist with labs, editing sessions and/or field work. Unlimited repeatability.

JMC 408 Special Topics (3) Current issues or problems in journalism and mass communications. Repeatable, under different subtitles.

JMC 410 Advanced News and Feature Writing (3) Prerequisite: JMC 210. Major/minors only. Covering news beats, C-SPAN events. Researching and writing features, editorials and columns for all media. Fee required.

JMC 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

JMC 443 Electronic Field Production (4) Prerequisite: JMC 342. Majors only. Remote video production and video editing; producing short programs or segments using these techniques. Fee required.

JMC 444 Cable Television Production (3) Prerequisites: JMC 342, JMC 443. Majors only. The techniques and theories needed to produce regularly scheduled cable television programs. Fee required.

JMC 460 Media Management (3) Majors only. Procedures, issues and responsibilities that must be mastered by managers of newspapers and radio and television stations.

JMC 481 Public Relations Techniques (3) Prerequisites: JMC 210, JMC 380. Majors only. Effective tools and techniques used by the professional public relations practitioner.

JMC 484 Advertising and Society (3) Majors only. A critical approach to the study of the effects, role and responsibilities of advertising in society. Historical, cultural, sociological and economic perspectives are used to examine philosophical and ethical issues.

JMC 492 Journalism and Mass Communications Internship (1-3) One semester of full-time work in news, broadcast media, public relations, advertising or related organizations. Repeatable, maximum three credits.

JMC 495 Television Criticism (3) Study television as an informative, persuasive, entertaining and culturally-indoctrinating medium. Fee required.

JMC 497 Mass Communications Law (3) Seniors or above. Current and perennial ethical and legal issues in Journalism and mass communications media that affect journalists, media management and the public.

JMC 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

JMC 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

JMC 543 Electronic Field Production (4) Majors only. The techniques of remote video production and video editing. Produce short programs or segments using these techniques. Fee required.

JMC 544 Cable Television Production (3) Prerequisites: JMC 342, JMC 443. Majors only. The techniques necessary as part of a production unit for a regularly scheduled cable television program. Fee required.

JMC 580 Public Relations (3) Majors only. Recreation majors can get consent of instructor. Concepts, procedures and theories behind public relations work. Examine current practices in business, government and other settings.

JMC 581 Public Relations Techniques (3) Prerequisites: JMC 210, JMC 380. Effective tools and techniques used by the professional public relations practitioner.

JMC 583 Philosophies and Procedures of Public Relations (3) Case study approach to advanced study of the public relations process and its application to a variety of institutions from business to education.

JMC 591 Seminar: International Mass Communications (3) The economics, social impact and philosophical dimensions of international mass communications: the industries, the policies and the issues. Special focus is given to case studies of particular countries and the impact of one country's media on the life and culture of another.

JMC 592 News Media and Public Policy (3) The structure, policies and content of the news media and how these relate to issues of public policy.

JMC 593 Professional Perspectives (3) The ethics and responsibilities of professional communicators in Journalism and mass media, especially as they relate to and result from the problems and situations they confront as employees and managers.

JMC 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

KINE - Kinesiology

KINE 206 Overview of Kinesiology (3) Introduction of the basic concepts, principles, and components of Kinesiology. Career opportunities and field experiences at specific worksites will cover career development.

KINE 220 Anatomical Kinesiology (3) Study of the anatomical bases of human movement. Laboratory provides application of principles. Fee required.

KINE 221 Biomechanics (3) Prerequisites: KINE 220 and 3 Math credits or equivalent. Application of mechanical principles in the study of human movement. Laboratory provides application of concepts. Fee required.

KINE 222 Physiological Kinesiology (3) Investigate the basic concepts in the physiological components of human movement. Laboratory provides application of principles. Fee required.

KINE 311 Pharmacology for Exercise Professionals (1) The effects of basic pharmacology on the human physiological systems as related to acute and chronic exercise responses.

KINE 323 Neuromotor Kinesiology (3) Laboratory required. Study of the neuropsychological components of motor behavior, with an emphasis on movement problems. Laboratory provides application of concepts.

KINE 330 Practicum in Exercise Leadership (3) Prerequisite: KINE 220, KINE 222 or Equivalent. Students will gain practical skills in exercise leadership. Students will be exposed to a wide sampling of practical experiences in the fitness/wellness area. These practical experiences will entail being exercise leaders in aerobics, step aerobics, muscle toning, weight training, fitness assessment, and other fitness related activities on the University of Northern Colorado campus. Repeatable, maximum nine credits.

KINE 333 Psychological Analysis of Sports, Exercise and Physical Activity (3) An introduction to the theories, subject matter and latest empirical research concerning the cognitive processes and emotional states that regulate and influence performance in sports, exercise and other physical activities.

KINE 380 Prevention and Care of Sports Injuries (2) Prerequisites: KINE 220, KINE 221 or equivalents. Emphasis on prevention of injury to the young athlete participating in sport. Includes an overview of mechanisms, initial care, reconditioning and basic wrapping and taping techniques of common sports injuries and organization of preventive programs. Fee required.

KINE 381 Practical Experiences in Care of Athletic Injuries (3) Prerequisite: KINE 380 or equivalent. Admission to Athletic Training Clinical Program required. Consent of instructor. Divided into five modules for three semester hours each. One module will be offered each semester. Modules are: anatomy applied to injury, emergency care and referral, modality application, program administration and current athletic training topics. Repeatable, maximum 15 credits.

KINE 390 Cardiopulmonary Resuscitation Certification (1) Basis, skills and techniques of basic life support. Includes emergency medical systems, CPR for adult and child, obstruction for adult and child and special situation techniques. Upon successful completion, student will receive certification through the American Heart Association and/or the American Red Cross.

KINE 400 Fitness Management (3) Majors only. Juniors or above. Management, marketing, risk management and legal strategies as related to the exercise and fitness industry. Students observe, practice and analyze management, marketing and legal strategies.

KINE 402 Human Performance Assessment (3) Prerequisites: KINE 222, KINE 410/510 or equivalent. Majors only. Juniors or above. Uses and techniques of assessment in fitness, work capacity and sport. Experience in the use and interpretation of laboratory and field tests. Fee required.

KINE 404 Exercise Nutrition and Body Composition (3) Prerequisite: KINE 222 or equivalent. The nutritional aspects of human performance will be explored with a focus on fitness. The current methods of assessment of body composition are included.

KINE 406 Exercise Programming (3) Prerequisites: KINE 222 and KINE 402 or equivalent. Majors only. Juniors or above. Examination of the competencies necessary for the design, the organization and the implementation of preventive and rehabilitative exercise programs.

KINE 408 Workshop in Kinesiology (1-3) Offers a variety of workshops on special topics. S/U or Letter graded. Repeatable, under different subtitles.

KINE 410 Principles of Electrocardiography (3) Prerequisite: KINE 222 or equivalent. Majors only. Juniors or above. Basic electrocardiography and ECG interpretation will be studied. Emphasis is placed on interpretation of resting and exercise EKG's, monitoring procedures, interpretation of abnormalities and drugs that may affect exercise. Fee required.

KINE 415 Senior Research Project (1-3) Consent of instructor. Provide an opportunity for senior students to participate in a research project. S/U graded. Repeatable, maximum three credits.

KINE 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

KINE 436 Social Influences on Sport and Exercise Behavior (3) Application of sociological concepts and theories to examine current practices, problems and issues in physical activity, exercise and sport.

KINE 485 Mechanism and Evaluation of Sports Injury (3) Prerequisite: KINE 380 or equivalent. Admission to the Athletic Training Clinical Program required and consent of instructor. For majors only. Techniques, procedures and skill for the recognition and evaluation of acute and chronic injuries. Includes history, inspection, palpation, functional testing and special evaluation techniques.

KINE 486 Clinical Methods of Sports Injury Rehabilitation (3) Prerequisite: KINE 380 or equivalent. Admission to the Athletic Training Clinical Program required and consent of instructor. For majors only. Neurophysiological basis, techniques and skills utilized in the prevention and rehabilitation of sports injuries. Includes indications, contraindications, applications of therapeutic exercise, protective aids and return to participation parameters.

KINE 487 Therapeutic Modalities (2) Prerequisites: admission to the Athletic Training Clinical Program required and consent of instructor. For majors only. Theory, basis and use of cold, heat, hydrotherapy, muscle stimulation, compression and other modalities utilized in the management of sports injury.

KINE 488 Athletic Training Administration (2)

Admission to Clinical Athletic Training Program required and consent of instructor. Majors only. Organization and Administration of athletic training and sports medicine program. Topics include facilities, equipment, medical personal, budgets, insurance, emergency planning, risk management, professional code of ethics and other current topics.

KINE 492 Internship in Fitness and Exercise Kinesiology (6-12)

Prerequisites: Completion of KINE prefix courses with a GPA of 2.7; current CPR certification and consent of the Internship Director. Supervised experience in fitness and exercise programs or cardiac rehabilitation. S/U graded. Repeatable, maximum 12 credits.

KINE 500 Fitness Management (3)

Majors only. Management, marketing, risk management and legal strategies as related to the exercise and fitness industry. Students observe, practice and analyze management, marketing and legal strategies.

KINE 502 Human Performance Assessment (3)

Prerequisites: KINE 222, KINE 410/510 or equivalent. Majors only. Uses and techniques of assessment in fitness, work capacity and sport. Experience in the use and interpretation of laboratory and field tests. Fee required.

KINE 504 Exercise Nutrition and Body Composition (3)

Prerequisite: KINE 222 or KINE 626 or equivalent. The nutritional aspects of human performance will be explored with a focus on fitness. The current methods of assessment of body composition are included.

KINE 506 Exercise Programming (3)

Prerequisite: KINE 222 or KINE 626 or equivalent. Majors only. Examination of the competencies necessary for the design, the organization and the implementation of preventive and rehabilitative exercise programs.

KINE 508 Workshop (1-3)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

KINE 510 Principles of Electrocardiography (3)

Prerequisite: KINE 222 or KINE 626 or equivalent. Majors only. Basic electrocardiography and ECG interpretation will be studied. Emphasis is placed on interpretation of resting and exercise EKG's and monitoring procedures, interpretation of abnormalities and drugs that may affect exercise. Fee required.

KINE 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

KINE 580 Advanced Prevention, Care and Rehabilitation of Athletic Injuries (3)

Prerequisite: KINE 380 or KINE 579 or equivalent. Analyze, evaluate and apply current techniques and practices to injuries in the school physical activity and sports programs.

KINE 581 Practical Experiences in Care of Athletic Injuries (3)

Prerequisite: KINE 380 or KINE 579 or equivalent. This course is divided into four modules for three semester hours each. One module will be offered each semester. These modules are: anatomy applied to injury, emergency care and referral, modality application and program administration. Repeatable, maximum 15 credits.

KINE 620 Advanced Anatomical Kinesiology (3)

Prerequisite: KINE 220 or equivalent. Make an advanced study of the structural components of human movement, with special attention to the analysis of movement problems. Fee required.

KINE 621 Advanced Biomechanics (3)

Prerequisite: KINE 221 or equivalent. Make an advanced study of the mechanical components of human movement, stressing the analysis of movement problems. Fee required.

KINE 622 Directed Studies (1-4)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

KINE 623 Advanced Neuromotor Kinesiology (3)

Prerequisite: KINE 223 or equivalent. Advanced study of the influence of developmental and aging processes upon movement across the lifespan.

KINE 624 Advanced Developmental Kinesiology (3)

Prerequisite: KINE 223 or equivalent. Advanced study of the influence of developmental and aging processes upon movement across the lifespan.

KINE 625 Laboratory Techniques in Kinesiological Research (1-3)

Consent of instructor. Titles: Laboratory Techniques in Mechanical Kinesiology; Laboratory Techniques in Exercise Physiology; Laboratory Techniques in Social Psychological Kinesiology; and Meta-analysis in KPE research. Repeatable, under different subtitles. Fee required.

KINE 626 Advanced Physiological Kinesiology I (3)

Prerequisite: KINE 222 or equivalent. Advanced study of energy metabolism and exercise nutrition involved with human movement. Fee required.

KINE 627 Advanced Physiological Kinesiology II (3)

Prerequisite: KINE 626 or equivalent. Advanced study of the muscular and endocrine systems involved with human movement.

KINE 629 Concepts in Kinesiology (1-3)

Consent of instructor. Experiences provided are: Mechanical — Mechanical Analysis of Locomotion Skills, Mechanical Analysis of Projection Skills, Mechanical Analysis of Manipulation Skills; Physiological — Muscle Physiology, Cardiopulmonary Physiology, Physiological Principles of Conditioning; Psychological — Perception, Motivation, Motor Learning, Neuromotor Mechanisms in Motor Control. Repeatable, under different subtitles.

KINE 635 Exercise and Sports Psychology (3)

Application of psychological concepts, principles and empirical findings to exercise programs and organized sport settings.

KINE 670 Advanced Sociological Kinesiology (3)

Advanced study of the application of sociological concepts and theories to current issues in kinesiology.

KINE 690 Problems in Human Movement (3)

Prerequisites: Competency or equivalent in four of the following: KINE 620, KINE 621, KINE 623, KINE 624, KINE 626 and KINE 670. Individual and group study of problems related to scientific bases of human movement.

KINE 692 Graduate Internship in Kinesiology (6)

Consent of instructor. Supervised experience structured to the special philosophy and functions of the student's graduate program. S/U graded.

KINE 694 Special Topics in Kinesiology (1-3)

Engage in a course of study designed to investigate a special topic. Repeatable, maximum three credits.

KINE 699 Thesis (1-6) Optional for Master of Arts students on recommendation of major advisor. S/U graded. Repeatable, no limitations.

KINE 755 Supervised Practicum in College Teaching (1-6)

Experience supervised teaching of undergraduate kinesiology lessons. Develop course outlines and effective teaching techniques. S/U graded. Repeatable, maximum six credits.

KINE 797 Doctoral Proposal Research (1-4)

Required of all doctoral students. Students must earn four hours of credit for the doctoral dissertation proposal research in partial fulfillment of doctoral requirements before admission to candidacy. S/U graded. Repeatable, maximum four credits.

KINE 799 Doctoral Dissertation (1-12)

Required of all doctoral candidates. Students must earn 12 hours of credit for dissertation as partial fulfillment of the doctoral requirements. S/U graded. Repeatable, no limitations.

MATH - Mathematics**MATH 023 Intermediate Algebra (3)**

Elementary concepts of algebra including quadratic equations, the function concept and systems of linear equations. This is a Basic Skills course offered through Continuing Education and does not count in term, cumulative or total credits and will not be calculated in the GPA.

MATH 113 Professional Renewal (1-8)

Concentrate on various topics in mathematics, depending on instructor conducting course. Repeatable, under different subtitles.

MATH 124 College Algebra (4)

Full year of modern, second year high school algebra with the grade of "C" or better and score at a predetermined level on the placement exam. Treat quadratic, exponential and logarithmic functions. Topics from matrices and the theory of equations.

MATH 125 Plane Trigonometry (3)

Prerequisite: MATH 124 or score at a predetermined level on the placement exam. Study circular functions and their applications, inverse trigonometric functions and identities and cover complex numbers through DeMoivre's Theorem.

MATH 127 Elementary Functions (4)

Full year of modern, second year high school algebra with the grade of "B" or better and score at a predetermined level on the placement exam. Develop those skills required in calculus, including polynomial functions, exponential and logarithmic functions, trigonometric functions, vectors, analytic geometry and polar coordinates.

MATH 131 Calculus and Analytic Geometry I (4)

High school mathematics through trigonometry with the grade of "C" or better and score at a predetermined level on the placement exam. First course in 3-course sequence in analytic geometry and calculus. Limits, derivatives, extrema, related rates, applications of integral to problems in area, volume, work and centers of mass. Fee required.

MATH 132 Calculus and Analytic Geometry II (4)

Prerequisite: MATH 131 with the grade of "C" or better. Second course in 3-course sequence in analytic geometry and calculus. Exponential and logarithmic functions, trigonometric functions, their inverses, derivatives and integrals, sequences and series. Fee required.

MATH 175 Topics in Finite Mathematics (3)

Two years of high school algebra with a grade of "C" or better and score at a predetermined level on the placement exam. Standard topics from finite mathematics: algebra, matrices, sets and probability.

MATH 176 Topics in Calculus (3) Prerequisite: MATH 124 or MATH 175 or equivalent; or two years of high school algebra with a grade of "C" or better and score at a predetermined level on the placement exam. Techniques and applications of differential and integral calculus.

MATH 181 Fundamentals of Mathematics I (3) First of a 3-course sequence particularly pertinent to prospective arithmetic teachers, presenting arithmetic and algebra from modern approach. Understand mathematical structures, including natural numbers, integers, rational numbers, relations, functions and equations.

MATH 182 Fundamentals of Mathematics II (2) Prerequisite: MATH 181. Continuation of MATH 181. Includes probability, statistics, measurement and applications of mathematics in science.

MATH 190 Mathematics and Liberal Arts (3) Minimum of one full year of high school algebra with a grade of "C" or better and score at a predetermined level on the placement exam. Non-majors only. Learn about several topics in mathematics through intuitive presentation to help those who want to know more about mathematics. Not open to mathematics majors and minors.

MATH 221 Elementary Linear Algebra (3) Prerequisite: MATH 131 with the grade of "C" or better. Vector spaces, linear transformations, matrices, determinants, eigenvalues and eigenvectors, applications.

MATH 228 Discrete Mathematics (3) Prerequisite: MATH 132 with the grade of "C" or better. A survey course of non-calculus based mathematics used extensively in computer science and other disciplines. Study sets, types of proofs, logic, recursion and related topics.

MATH 229 Graph Theory (3) Prerequisite: MATH 132 or MATH 228 with the grade of "C" or better. Study concepts of graph theory and several applications. Topics: planar graphs, chains, cycles, trees, map coloring, Euler's formula, matching and optimization problems.

MATH 233 Calculus and Analytic Geometry III (4) Prerequisite: MATH 132 with the grade of "C" or better. Third course in 3-course sequence in analytic geometry and calculus. Arc length, surface of revolution, parametric equations and vectors functions of several variables. Fee required.

MATH 283 Informal Geometry (2) Study informal Euclidean geometry suitable for the K-8 curriculum, employing laboratory techniques where applicable.

MATH 305 Mathematics of Finance (3) Ability to solve algebraic equations and use logarithms required. Study simple and compound interest, bank discount, annuities, amortization and insurance. Scientific or business calculator required.

MATH 321 Introduction to Abstract Algebra (4) Prerequisites: MATH 221 and MATH 228 with the grade of "C" or better. Standard concepts of abstract algebra including groups, rings, integral domains and fields.

MATH 335 Differential Equations I (3) Prerequisite: MATH 233 with the grade of "C" or better. Study the theory and solutions of ordinary differential equations including applications.

MATH 336 Differential Equations II (3) Prerequisite: MATH 335 with the grade of "C" or better. Continuation of MATH 335. The existence and uniqueness theory, systems of equations, boundary value problems and an introduction to partial differential equations.

MATH 341 Introduction to Modern Geometry (4) Prerequisites: MATH 221, MATH 228 and high school synthetic geometry with the grade of "C" or better. Build on Euclidean geometry background by proving classical and modern Euclidean theorems. Study the foundations of geometry through investigating non-Euclidean and projective geometries. Fee required.

MATH 350 Elementary Probability Theory (3) Prerequisite: MATH 132 with the grade of "C" or better. Learn about discrete and continuous probability, Bayes' theorem, one-dimensional random variables and the expected values of random variables, Bernoulli, binomial, Poisson geometric, hypergeometric and multinomial probability law.

MATH 351 Elementary Statistics Theory (3) Prerequisite: MATH 350 with a grade of "C" or better. A continuation of MATH 350. Learn about jointly distributed random variables, central limit theorem, sampling distributions, maximum likelihood estimation, properties of estimation, confidence intervals and tests of hypothesis.

MATH 375 Elementary Numerical Analysis (3) Prerequisites: MATH 221 with the grade of "C" or better, MATH 233 and ability to program. Numerical solutions of equations and systems of equations; interpolation and approximation; numerical differentiation and integration; numerical solutions of differential equations.

MATH 391 Introduction to Number Theory (3) Prerequisites: MATH 221, MATH 228. Topics will include basic properties of the Natural Numbers, prime numbers, divisibility, factorization, consequences, Euler's phi function, cryptology, introduction to Diophantine Equations and selected topics.

MATH 395 Topics in Mathematics for Teachers (3) Emphasis will be on problem solving skills, reasonableness of answers, using calculators and computers and on problem posing.

MATH 403 Structure of Numbers (3) Prerequisite: MATH 132 with the grade of "C" or better. Beginning with Peano's postulates for the natural numbers, the integers are obtained by extension. Rational and real and complex numbers are then obtained by further extensions. Isomorphisms are stressed.

MATH 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MATH 431 Basic Analysis I (4) Prerequisite: MATH 233 with grade of "C" or better. Sequence of two courses to extend studies of calculus and analysis into the mathematical rigor and logic of analysis. Includes: real numbers, sequences, topology, limits, continuity, differentiation, series and integration.

MATH 432 Basic Analysis II (4) Prerequisite: MATH 431 with grade of "C" or better. Continuation of MATH 431.

MATH 437 Mathematical Modeling (3) Prerequisites: CG 120 with grade of "C" or better, MATH 221 and MATH 233. Use mathematical tools to develop models of practical problems. Emphasize development, verification and interpretation of models and communication of results.

MATH 460 Introduction to Complex Analysis (3) Prerequisite: MATH 233 with a grade of "C" or better or equivalent. First course in complex variables, especially for potential calculus teachers. After preliminaries, proceed directly to power series, Laurent's series, contour integration, residue theory, polynomials and rational function.

MATH 464 Introduction to History of Mathematics (3) Prerequisites: MATH 221, MATH 228, MATH 341. Junior or above in Mathematics. Survey of mathematical conceptual development and the people involved from antiquity to the present, including pedagogical applications, content connections, and use of reference resources.

MATH 495 Topics in Mathematics (1-3) Consent of instructor. Surveys topics in areas such as geometry, analysis, algebra, statistics, numerical analysis, topology and number theory not in existing courses, which reflect specific interests of instructors and students. Repeatable, under different subtitles.

MATH 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

MATH 510 Seminar in Mathematics (1) Study discussion and student presentation of topics in mathematics. S/U graded. Repeatable, under different subtitles.

MATH 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

MATH 520 Functions and Equations (3) Graduates only. Polynomial equations including De Moivre's Theorem, the Fundamental Theorem of Algebra, methods of root extraction (e.g. Newton, Graffe) multiplicities, symmetric functions, matrices and determinants. Elementary computer applications.

MATH 521 Vectors and Matrices (2) Graduates only. Study of vectors and matrices, connections to other areas, and topics in mathematics and the use of vectors and matrices in applications.

MATH 523 Modern Algebra (3) A study of groups, rings and fields with a special emphasis on groups and fields.

MATH 525 Linear Algebra I (3) Prerequisite: MATH 321. Vector spaces, linear transformations, matrices, eigenvalues, canonical forms, quadratic forms and other selected topics.

MATH 528 Discrete Mathematics (3) Graduates only. A broad, yet deep, survey of topics in combinatorics and graph theory addressing three broad categories of problems: existence, enumeration and optimization. Blend of mathematics, real-world applications and development of mathematical reasoning skills, guided by the NCTM Yearbook.

MATH 529 Mathematical Problem Solving (2) Graduates only. Techniques in problem solving applied to algebra, number theory, geometry, probability, discrete mathematics, logic and calculus. A study of Polya's heuristic rules of mathematical discovery.

MATH 534 Continuous Mathematics (3) Graduates only. Students will explore selected topics in mathematical analysis such as differential mappings and chaotic systems.

MATH 537 Mathematical Modeling (3) Graduates only. Introduction to the process of mathematical modeling and its use in teaching secondary school mathematics. Emphasizes development and communication of models.

MATH 540 Introduction to Topology (3) Point-set topology and the foundations of real analysis.

MATH 543 Modern Geometry (3) A survey of both traditional Euclidean geometry and contemporary geometries, in which applications of geometry are integrated into the study of the mathematical structure of geometrical systems.

MATH 544 Introduction to Differential Geometry (3) Prerequisite: MATH 432 or equivalent. The geometry of curves and surfaces will be studied. The notions of curvature for lines and surfaces will be analyzed and their relationships to topology discussed.

MATH 545 Introductory Analysis (3) Prerequisite: MATH 540. Sequences, series, differentiation, Riemann-Stieltjes Integral, series of functions, special functions and functions of several variables.

MATH 550 Applied Probability and Statistics (3) Graduates only. Applied statistics and probability concepts to include history, counting techniques, distributions and inference (confidence intervals, point estimation, testing, ANOVA, regression, non-parametrics) will be covered in a context for use in secondary mathematics.

MATH 560 Introductory Complex Variables (3) Prerequisite: MATH 432 or equivalent. First course in complex variables, especially for potential calculus teachers. After preliminaries, proceed directly to power series, Laurent's series, contour integration, residue theory, polynomials and rational functions.

MATH 564 Topics in History of Mathematics (3) Explore a period of time, an area of mathematics and/or a group of mathematicians. Consult instructor for emphasis. Repeatable, under different subtitles.

MATH 591 Abstract Algebra and Number Theory (3) Basic methods of problem solving in abstract algebra and number theory with applications in secondary school mathematics.

MATH 609 Symmetry in Mathematics (3) Prerequisite: A graduate level course in Algebra. Course provides an overview of the theoretical and practical roles of group structures in various fields of mathematics.

MATH 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MATH 623 Topics in Advanced Algebra (3) A graduate level course in algebra required. Topics in Groups, Rings, Fields, polynomials over Rings and Fields. Content depends on instructor's choice. Repeatable, may be taken two times under different subtitles.

MATH 632 Complex Variables (3) A course in complex analysis required. Analytic and meromorphic functions in the complex plane. Integration, conformal mapping and advanced topics.

MATH 633 Geometric Analysis (3) Prerequisites: MATH 525; MATH 540 recommended. Analysis of functions of several variables; unifying and extending ideas from calculus and linear algebra. Includes the implicit function theorem and Stokes' Theorem.

MATH 635 Real Analysis (3) Prerequisite: MATH 536. Abstract spaces, Lebesgue measure, continuity, integration and differentiation theorems, Baire category.

MATH 644 Differential Geometry (3) A course in Analysis required. A course in the differential geometry of curves and surfaces. Both modern and classical aspects will be covered.

MATH 664 Difference Equations and Chaos (3) Prerequisite: MATH 536. Applications of difference equations in problem solving and modeling, especially in the area of chaos.

MATH 678 Mathematical Logic (3) The notion of proof, first order logic, set theory, ordinals, cardinals and an overview of the most important recent results in the field.

MATH 691 Number Theory (3) Prerequisite: MATH 632. A survey of topics in arithmetic and analytic number theory, such as Eulers' function, quadratic reciprocity, continued fractions and the distribution of prime numbers.

MATH 695 Special Topics (3) Topics from various fields of mathematics, for example, algebraic topology, functional analysis, Lie groups and algebras or nonlinear analysis. Repeatable, may be taken two times under different subtitles.

MATH 700 Advanced Seminar (2) Consent of Instructor. An advanced seminar in an active area of mathematical research. Content depends upon instructor's choice. Repeatable, may be taken two times under different subtitles.

MATH 727 Representation Theory (3) Introduction to Representation Theory of various mathematical structures. Emphasis is on group representations.

MATH 728 Topics in Discrete Mathematics (3) Prerequisite: MATH 678. A broad yet deep survey of current topics in combinatorics and graph theory essential for teachers k-16, including applications to probability, coding theory, sorting and matching algorithms and optimization.

MATH 736 Real Analysis II (3) Prerequisite: MATH 635. Topics from real and functional analysis such as: measure theory, distributions, metric spaces and other topics of the instructor's choice.

MATH 754 Intern Teaching in Mathematics (1-4) Primarily for doctoral candidates preparing to teach in colleges or community colleges. Experience and supervised practice, with attention to various aspects of teaching-learning process and analysis of self-growth. Repeatable, may be taken two times.

MATH 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Four hours of credit for doctoral dissertation proposal research must be earned in partial fulfillment of requirements before admission to candidacy. Repeatable, maximum four credits.

MATH 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. S/U grading. Repeatable, no limitations.

MCS - Multicultural Studies

MCS 101 Multiculturalism in the United States: Concepts and Issues (3) An introduction to concepts and issues of multicultural behavior and group dynamics in contemporary United States society. The course will focus on the experiences of ethnic minority groups and women.

MED - Mathematics Education

MED 272 Mathematics Tutoring (1) Upon completion of 2 hours of instruction on how to tutor in mathematics, the student will complete 30 clock hours of tutoring. S/U graded. Repeatable, may be taken two times.

MED 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MED 441 Methods of Teaching Mathematics (3) Corequisite: EDLS 363. Full admission to PTEP required. For prospective teachers seeking certification at the middle school, junior high or senior high school level. Gain skill in constructing teaching strategies, understanding curriculum problems and applying basic theories in teaching and learning mathematics. Early field experience desirable.

MED 487 Technology, Manipulatives and NCTM Standards (3) Classroom use of mathematics software, calculators, pattern blocks, attribute blocks, geoboards, geometric solids, MIRA's and others presented to teach problem solving, skills and concepts. S/U graded.

MED 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

MED 509 Advanced Placement Program AB and BC Calculus (1-3) Topics in calculus and pedagogical information related to establishing and maintaining a calculus advanced placement program. S/U graded. Unlimited repeatability.

MED 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

MED 528 Teaching of Discrete Mathematics (2) Graduates only. Methods of teaching discrete mathematics including using technology, projects, cooperative groups and the development of curriculum materials. Topics will include the teaching of existence problems, counting problems and optimization problems.

MED 534 Teaching Algebra and Trigonometry (2) Graduates only. Current research on instruction in algebra/trigonometry; current curricular issues. Approach teaching of Algebra and Trigonometry from a conceptual and problem solving point of view.

MED 543 Teaching Geometry (2) Graduates only. Students will develop teaching modules and models based on current theories of cognition and recommendations of professional societies.

MED 550 Teaching Applied Probability and Statistics (2) Graduates only. Methods of teaching topics of probability and statistics including hands-on experience in collecting and analyzing data. Topics include descriptive techniques, random variables, curve fitting and use of technology.

MED 577 Mathematics Teachers Workshop (1-3) No more than six credits may be applied on any one graduate degree. Work on problems K-14. S/U graded. Repeatable, under different subtitles to a maximum of 12 credits.

MED 585 Teaching Elementary and Middle School Mathematics (2) Graduates only. Designed for those certified elementary/middle school teachers who will be pursuing a specialization in the teaching of mathematics. Strong mathematics content background necessary.

MED 587 Technology, Manipulatives and NCTM Standards (3) Classroom use of mathematics software, calculators, pattern blocks, attribute blocks, geoboards, geometric solids, MIRA's and others presented to teach problem solving, skills and concepts. S/U graded.

MED 595 Teaching Advanced Topics in Secondary School Mathematics (2) Graduates only. Methods of teaching advanced mathematics topics in high school mathematics with emphasis on pedagogy, working cooperatively and developing curriculum materials for teaching such topics as vectors, fractals and transformations.

MED 600 Survey of Research in Mathematics Education (2) Graduates only. The goals of this course are to synthesize and reconceptualize post research, suggest areas of research most useful to advancing the field, and provide implications for classroom practice.

MED 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MED 630 Technology in Mathematics Education (2) Prerequisite: MED 600 or consent of instructor. Graduates only. Hands-on training in using new software tools for the instruction of mathematics. Current research and curriculum reform efforts concerning technology in teaching will be examined. Repeatable, may be taken 2 times.

MED 672 Trends in Mathematics Education (4) Graduates only. Current trends and issues that affect the teaching of school mathematics. Projects, readings and group work with focus on national and international studies and movements related to the teaching of mathematics.

MED 673 Preparation of Mathematics Specialists in Grades K-8 (3) Prerequisite: B.A. in mathematics or equivalent. To prepare elementary/middle school mathematics specialists. Includes mathematics review of number theory, geometry and other content, NCTM curriculum, professional and assessment standards, use of technology and manipulatives and research.

MED 674 Teaching and Learning Mathematics on the Secondary Level (3) Prerequisite: MED 600. Graduates only. Address and evaluate specific problems in mathematics education. Allow students to examine curricular concerns, evaluation, teaching special populations and cognitive issues relating specifically to the secondary level.

MED 675 Teaching and Learning Mathematics on the Post-Secondary Level (3) Prerequisite: MED 600 or consent of instructor. Graduates only. Address community college and undergraduate level mathematics education issues. Focus on current curriculum reform and research into learning and teaching on the post-secondary level.

MED 678 Special Topics (2-3) No more than six hours may be applied to any one graduate degree. Prerequisites and topics announced in Schedule of Classes. Repeatable, may be taken three times under different subtitles.

MED 700 Advanced Seminar: Postsecondary Cognitive Processes (3) Consent of Instructor. Discussion of post-secondary mathematics topics. Reading of research in teaching mathematics in post-secondary education. Repeatable, may be taken two times under different subtitles.

MED 701 Educational Mathematics Research (3) Learn advanced research concepts and methods that are unique in the study of educational mathematics. Includes data analysis and advanced statistical techniques.

MED 710 Seminar in Postsecondary Mathematics Teaching (1) Curricular, pedagogical and ethical issues in college mathematics teaching. Students and faculty reflect on and discuss ways to improve and reform teaching. S/U graded.

MED 750 Seminar on Philosophy of Educational Mathematics (3) MED 600 or consent of instructor. This seminar will foster open discussion and exploration of educational mathematics in the broadest sense of the word.

MED 765 Mathematical Structures and Education (3) Course presents various approaches to basic and advanced mathematical structures. Analyzes educational difficulties related with each approach. Content depends on instructor's choice.

MET - Meteorology

MET 110 Climate and Humans (3) A general education course that explores the interrelationships between people and climate. The factors and elements of climate, impact of people on climate and influence of climate on historical events.

MET 205 General Meteorology (4) (3 lecture, 2 laboratory) The basic course in meteorology. The atmosphere, its structure and composition. Radiation, temperature, pressure, wind, humidity, precipitation, clouds, air masses and fronts. Measurements. Weather maps. Fee required.

MET 306 Dynamic Meteorology I (3) (2 lecture, 3 laboratory) Prerequisites: MET 205, MATH 131. In-depth treatment of gas laws, atmosphere thermodynamics and stability, cloud dynamics and adiabatic charts. Fee required.

MET 315 Meteorological Instruments and Codes (2) (4 laboratory) Prerequisite: MET 205 or MET 306. Meteorological instruments and their operations; weather maps and data exchange; codes and plotting of charts. Fee required.

MET 360 Physical Meteorology (3) Prerequisites: MET 205, MATH 124. Physical structure of the atmosphere, radiation in atmosphere, radiation laws, cloud microphysics, precipitation processes.

MET 376 Meteorological COOP Education (1-12) Prerequisites: MET 205, MET 306. Credit given for participation in cooperative work/study program with National Weather Service, NOAA and/or other agencies. Summary paper required for work and/or research activities. Repeatable, maximum 24 credits.

MET 407 Dynamic Meteorology II (4) (3 lecture, 2 laboratory) Prerequisite: MET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts. Fee required.

MET 421 Climatology (3) Prerequisite: MET 205 or MET 500. Factors of climate; analytical methods of climatology; climatic classification. Regional distribution of climates around the world. Applied climatology.

MET 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MET 441 Synoptic Meteorology (3) Prerequisite: MET 407/507. Corequisite: MET 442/542. Development and movement of air masses, fronts and associated weather systems. Synoptic weather charts and their uses.

MET 442 Synoptic Meteorology Laboratory (3) Corequisite: MET 441/541. Use of weather charts and data in forecasting of current weather and analysis of historical weather. Field trip to NOAA and National Weather Service Forecast Office. Fee required.

MET 465 Radar Meteorology (3) Prerequisites: MET 205, MATH 131. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

MET 470 Satellite Meteorology (3) Prerequisites: MET 407 or MET 441 or MET 507 and MET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

MET 500 Survey of Meteorology (3) (2 lecture, 3 laboratory) Principles of atmospheric science for teachers. Earth-atmosphere energy budget, pressure, temperature, wind, humidity, clouds, atmospheric stability, precipitation processes, air masses and fronts, current weather. Fee required.

MET 507 Dynamic Meteorology II (4) (3 lecture, 2 laboratory) Prerequisite: MET 306. Atmospheric motion and laws governing it. Planetary and secondary circulations, jet streams, vorticity, cyclogenesis, air masses and fronts. Fee required.

MET 521 Climatology (3) Prerequisite: MET 205 or MET 500. Factors of climate; analytical methods of climatology; climatic classification. Regional distribution of climates around the world. Applied climatology.

MET 536 Biometeorology (3) Prerequisite: MET 205 or MET 500. Relationships between living organisms and atmospheric environment. Effects of weather on human health, agriculture and animals. Soil and air temperature, radiation and energy budgets, water cycle, heat units, comfort indices.

MET 541 Synoptic Meteorology (3) Prerequisite: MET 407/507. Corequisite: MET 442/542. Development and movement of air masses, fronts and associated weather systems. Synoptic weather charts and their uses.

MET 542 Synoptic Meteorology Laboratory (2) (4 laboratory) Corequisite: MET 441/541. Analysis and forecasting exercises and activities. Fee required.

MET 560 Mesometeorology (3) Prerequisite: MET 306. Mesoscale weather phenomena, such as thunderstorms, tornadoes, tropical cyclones, lee wave and downslope winds.

MET 565 Radar Meteorology (3) Prerequisites: MET 205 and MATH 131. Majors only. Principles of radar operation and radar remote sensing techniques. Types of radar and their applications in meteorology.

MET 570 Satellite Meteorology (3) Prerequisites: MET 407 or MET 441 or MET 507 and MET 541. Use of atmospheric data and cloud imagery from satellites for understanding the atmosphere and forecasting the weather.

MET 595 Special Topics in Meteorology (1-4) Consent of instructor. Explore topics in Meteorology beyond existing departmental offerings. Specific topics determined by student interest and instructor. Repeatable, under different subtitles.

MET 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MIND - Life of the Mind Program

MIND 180 Great Ideas of the Western Tradition (3) An introduction to the intellectual tradition of the western world through reading and discussion of basic works by Plato, Dante, Machiavelli, others. Credit in General Education category 4 for Philosophy or Literature or History.

MIND 181 Great Traditions of Asia: India, China and Japan (3) Interdisciplinary study of the traditions of Asian countries, dealing with historical contexts and literary and artistic expressions. Offered by History, English and Visual Arts. Credit in General Education category 4 for History or Literature or Fine Arts.

MIND 182 Confluence of Cultures (3) An exploration of African American, Asian American, Hispanic American and Native American cultures from historical, literary and artistic perspectives. Credit in General Education category 7 for Multicultural or International Cultures courses.

MIND 286 Value Issues in Political Economy (3) A study of the political and economic viewpoints on key value issues in society, exploring the influence of seminal thinkers in their time and now. Credit in either Political Science or Economics in General Education category 5.

MIND 288 Contemporary Arts Connections (3) Designed to involve students in synthesizing, analyzing and evaluating present-day visual art/music/theatre/dance and understanding its impact on and relationship to society. Team-taught by Music, Theatre and/or Visual Arts. Credit in General Education category 4.

MIND 289 Coming of Age in the Twentieth Century (3) An investigation through primary readings into the questions: How has our century been a coming of age? Into what age have we come? Credit in General Education category 7.

MIND 290 Search for Meaning (3) An investigation through primary readings into the search for meaning of three world thinkers (Socrates, Lao Tzu, Francis of Assisi) and a study of the relevance of their search to our own. Team-taught by Philosophy and History. Credit in General Education category 4 for Philosophy or History.

MIND 292 Ideas in Conflict (3) An examination of the conflicts between sets of ideas in modern times in both the West and the Third World. Credit in General Education category 7.

MIND 293 Play as a Route to Insight and Creation (3) An examination through primary sources of the ideas of artists, philosophers and scientists regarding the role of play in intellectual insight and artistic creation. Credit in General Education category 4 for Philosophy or Literature.

MIND 294 Revolutions in Science (3) Any UNC Science laboratory course required or consent of instructor. A science course engaging students in scientific inquiry while introducing them to principal scientific revolutions since the 16th century such as inertia, evolution, thermodynamics, genetics, plate tectonics, cosmology and others. Credit in General Education category 6 for Earth Sciences or Life Sciences or Physical Science.

MIND 297 Creativity in the Arts (3) Experience, experiment with and analyze artistic creativity. The course combines readings, discussions and hands-on creative projects in the arts. Team-taught by Music, Theatre and/or Visual Arts for General Education credit in category 4.

MS - Military Science

MS 111 Introduction to Military Skills I (2) Basic military skills to include: rifle marksmanship, repelling, customs, traditions and organization and role of the United States Army. Physical fitness training.

MS 121 Introduction to Military Skills II (2) Basic military skills to include: first aid, winter survival, compass and map reading and orienteering. Physical fitness training.

MS 211 Contemporary Management Principles (2) Management Simulation Program. Development of management skills to include: delegation and control, interpersonal skills and behavioral evaluation techniques. Physical fitness training.

MS 221 Dynamics of Military Operations (2) Techniques of small unit operations and troop leading procedures. Physical fitness training.

MS 311 Leadership Assessment (3) Prerequisites: MS 111, MS 121, MS 211 and MS 221 or MS 287 or consent of instructor. Leadership Development Program. Leadership style of each student assessed through simulations and role play. Physical fitness training. Laboratory required.

MS 321 Applied Leadership (3) Laboratory required. Consent of instructor. Techniques of command and staff functions. Development of operation orders and the conduct of tactical unit operations. Physical fitness training. Class includes 3-day field training exercise.

MS 322 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MS 387 Practicum in Leadership and Military Operations (8) (2 lecture, 6 laboratory) Prerequisite: MS 321 or consent of instructor. Theories and principles of leadership applied to actual field situations during 6-week paid ROTC advanced camp at Fort Lewis, Washington.

MS 401 Staff Functions and Leadership Principles (1) Laboratory required. Consent of instructor. Corequisite: HIST 250 during fall semester of MS IV year. Application of military staff functions while serving in leadership roles in the Army ROTC.

MS 421 Role and Ethics of the Officer (3) Laboratory required. Consent of instructor. Role of the Army Officer. Ethics and professionalism, military justice, law of land warfare and preparation for active duty. Physical fitness training.

MS 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MT - Musical Theatre

MT 260 Acting in Musical Theatre (3) Prerequisite: THEA 160. Musical Theatre or Voice Majors only. A step-by-step process approach to acting a song. Units will be covered connecting the actor with the event/discovery of purpose/obstacle/relationship/choices and action clarification.

MT 261 Singing for Actors (2) Acting Emphasis only or consent of instructor. Focus on basic singing technique for actors. Within the context of this class the acting students will study both theory and practical application of vocal technique as it applies to musical theatre and musical theatre auditioning.

MT 285 Performance in Musical Theatre (1-3) Consent of instructor. Practical experience in the production of a musical. Techniques of acting, singing, dancing, directing and other facets necessary for preparation of a show for public performance will be offered. Unlimited repeatability.

MT 330 History of Musical Theatre (3) American musical theatre and its development from the beginning of the 19th century to the present. Emphasis on research.

MT 342 Workshop in Directing/Choreography in Musical Theatre (3) (2 lecture; 3 laboratory) Prerequisite: THEA 240. A study of specific techniques required of the director for production of various musical theatre styles and production problems.

MT 353 Musical Theatre Production (2) Admission by audition only. Production and presentation of musical theatre or tour format before live audiences. Unlimited repeatability.

MT 360 Scene Study in Musical Theatre (3) (2 lecture; 3 laboratory) Prerequisites: MT 260, THEA 160; two semesters of study in voice. Musical theatre literature explored through the study of period and style. The laboratory experience will include singing, dancing and acting. Laboratory section may be repeated.

MT 370 Musical Theatre Dance (2) Prerequisites: DNCE 166, DNCE 170, DNCE 175. Gain knowledge and skill in the techniques and styles of dance required in musical theatre. Unlimited repeatability.

MT 465 Musical Theatre Workshop (3) (2 Lecture, 2 Laboratory) Prerequisites: MT 360, MUS 270/470 or consent of instructor. Corequisite: MUS 407. Study of role preparation and styles, particularly developing necessary skills to approach and prepare audition materials and new roles. Repeatable, maximum six credits.

MT 470 Senior Project in Musical Theatre (3) Consent of instructor, advisor and coordinator of program. Qualified seniors only. Practical experience in the production and performance of a musical theatre work. Techniques of acting, singing, character analysis, stage direction and dance (when applicable) will be studied. S/U graded.

MT 485 Performance in Musical Theatre (1-3) Consent of instructor. Practical experience in the production of a musical. Techniques of acting, singing, dancing, directing and other facets necessary for preparation of a show for public performance will be offered. Unlimited repeatability.

MTEC - Medical Technology

MTEC 410 Clinical Chemistry (3) Basic principles of chemistry instrumentation, quality control and clinical chemistry tests; meaning and use of electrolyte, blood gas, protein, liver function, renal function, lipid, carbohydrate, enzyme, endocrine, drug monitoring and other clinical chemistry tests.

MTEC 411 Chemistry Laboratory I (2) Theoretical and technical aspects of automated, semi-automated and manual chemistry procedures, quality control requirements and test data flow in the clinical chemistry laboratory.

MTEC 412 Chemistry Laboratory II (2) Additional testing procedures with emphasis on gaining proficiency in performance of tests utilizing skills learned in MTEC 411.

MTEC 413 Chemistry Laboratory III (1) New testing procedures, methods development and more about applying quality control methods for verification of test procedures.

MTEC 430 Immunology-Immunohematology (2) Basics of immunology and serology techniques utilized in the clinical laboratory, covering blood banking principles and methods and uses of blood transfusions and component therapy in medicine.

MTEC 431 Immunohematology Laboratory I (2) Principles and procedures of blood banking, selection and drawing of blood donors and the processing, pretesting and cross-matching of recipient's blood for transfusion.

MTEC 432 Immunohematology Laboratory II (1) Advanced principles of blood banking including auto-immune disorders, component usage and preparation, syphilis serology and case studies.

MTEC 440 Medical Microbiology (3) Identification of human pathogenic bacteria, fungi and parasites. The role of viruses, rickettsia, bacteria, fungi in disease, antibiotic therapy and susceptibility testing and quality control.

MTEC 441 Microbiology Laboratory I (2) Clinically significant bacteria, specimen collection, initial inoculation, organism isolation and identification, staining methods, biochemical and serological testing methods, susceptibility testing and quality control.

MTEC 442 Microbiology Laboratory II (3) Less frequently isolated and clinically significant bacteria, parasites and fungi causing disease in humans; review of MTEC 441.

MTEC 460 Urinalysis and Clinical Microscopy (1) Basic principles, interpretation and clinical significance of various tests performed on urine specimens and other body fluids.

MTEC 490 Hematology-Coagulation (3) Basic principles of hematology methods, blood dyscrasias and other hematologic abnormalities like anemias, leukemias, changes in hematology tests associated with multiple other diseases, the coagulation system and clinical coagulation testing applications.

MTEC 491 Hematology Laboratory I (2) Basic theory, techniques and skills required to perform routine analysis of patient specimens in hematology. Must be finished before MTEC 493.

MTEC 492 Hematology Laboratory II (2) Basic theory, techniques and skills required to perform routine analysis of patient specimens in urinalysis and coagulation, Must be completed before MTEC 493.

MTEC 493 Hematology-Serology-Electrophoresis Laboratory III (1) Prerequisites: MTEC 491, MTEC 492. Theory, techniques and skills required to perform serologic and immunologic assays, including electrophoresis, as well as diagnosis of blood dyscrasias in blood smears.

MUS - Music

MUS 100 Recitals, Concerts and Productions (No credit) All undergraduate Music majors are required to attend all weekly departmental recitals in their major areas, all Convocations, plus a minimum of 12 major recitals, concerts and productions each semester in residence. S/U graded. Unlimited repeatability.

MUS 101 Sight-Singing and Theory I (4) Sight-singing of diatonic melodies; melodic, harmonic and rhythmic dictation; study of intervals, scales, triads, the dominant seventh chord and non-harmonic tones in analysis and the connection of triads in four voice writing. Class meets 4 days a week, with the fifth day for keyboard laboratory. Class is open to all students, but is intended primarily for music majors and minors. Unlimited repeatability. Fee required.

MUS 102 Sight-Singing and Theory II (4) Prerequisite: MUS 101. Continuation of the ear-training and written materials of MUS 101 in greater depth and detail. Principles of harmonic progression, diatonic common chord modulation, non-harmonic tones, the Classic Period, developmental techniques and small homophonic forms. Class meets 4 days, with the fifth day for keyboard laboratory. Fee required.

MUS 140 Introduction to Music (3) A non-technical course aiming to increase the enjoyment and appreciation of music for students with little or no previous background. This course will be devoted to listening and discussion of the assigned listening.

MUS 141 Music Literature and Styles I (2) An introduction to analysis and description of music, its elements and vocabulary. A survey of music literature in Medieval, Renaissance, Baroque and Classical styles.

MUS 142 Music Literature and Styles II (2) A continuation of MUS 141. A survey of music literature in Baroque, Classical, Romantic and 20th Century styles, including a brief survey of the diversity of American Music.

MUS 152 Writing and Scholarship in the Performing and Visual Arts (3) Prerequisite: ENG 122 or equivalent. Majors only. A study of the basics of communication and scholarship necessary to students of music, fine arts and theatre, with emphasis on problems of style, organization, logical thinking and sources unique to these areas.

MUS 159 Class Piano for Non-Music Majors (1) For non-music majors without a background in piano. Develop basic piano skills in harmonization, sightreading, repertoire and technique.

MUS 160 Beginning Class Piano I (1) For music majors only without background in piano. Corequisite: MUS 101 or demonstrate an equivalent knowledge of the material covered in that class. Develop performance in sight reading, harmonization and piano technique. Fee required.

MUS 161 Beginning Class Piano II (1) Prerequisite: MUS 160 or consent of instructor. Majors only. For music majors continuing to develop reading skills, technique and style necessary for playing elementary piano music. Fee required.

MUS 201 Advanced Sight-Singing and Theory I (3) Prerequisite: MUS 102. A study of diatonic seventh chords, borrowed chords, secondary dominants, augmented sixth chords, chromatic and inharmonic modulation and musical forms of the Classic and Romantic Periods; sight-singing and harmonic and melodic dictation related to chromatic harmony; early 20th century techniques. Class meets 3 days each week, plus one half-hour keyboard laboratory. Fee required.

MUS 202 Advanced Sight-Singing and Theory II (3) Prerequisite: MUS 201. Studies of 20th century techniques, with student compositions performed and evaluated in class. Fee required.

MUS 204 Music Fundamentals and Experiences (3) For university students with minimal musical background. The purpose of this course is to acquire knowledge and understanding of musical concepts and terminology through research, critical writing, music analysis and performance.

MUS 206 Music Methods and Materials for Elementary Teachers (1) Prerequisite: MUS 101 or MUS 204. Develop understandings and musical skills related to methodology for a multifaceted music curriculum in the elementary classroom, including the integration of music with other disciplines. Two class meetings per week.

MUS 209 Introduction to MIDI and Music Software (2) This project orientated course introduces the language of MIDI and the basics of music sequencing and notation software. These skills allow the production of computer playback files and engraved scores.

MUS 210 Introduction to Music Education (1) Prerequisite: MUS 102. Music majors only. For prospective teachers of music. Covers the history and present status of music in the schools, qualifications of music teachers and beginning instructional problems. Weekly observation and aiding required.

MUS 221 Small Jazz Ensembles (1) Open to any student by audition. Groups consist of rhythm section plus three or four horns. Unlimited repeatability. Students should have an improvisation background before audition. MUS 223 is recommended.

MUS 223 Jazz Theory and Improvisation (2) Prerequisite: MUS 102 or consent of instructor. Class will focus on chords, symbols and major, minor and dorian scales; will investigate chord progressions and substitutions; and will cover basic jazz piano and individual instrument techniques.

MUS 224 Vocal Jazz Ensembles (1) Audition required. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Sing standard jazz literature; sing scat and deal with contemporary jazz notation. Perform on and off campus. Open to any UNC student. Unlimited repeatability.

MUS 225 Jazz Ensemble (1) Audition required. For brass, woodwind and rhythm players. Concentrates on the idioms of jazz music. Get thorough preparation for teaching at both secondary and college levels. Unlimited repeatability.

MUS 230 String Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 231 Brass Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 232 Woodwind Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 233 Percussion Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 235 Classical Guitar Ensemble (1) Audition required. Perform in an ensemble in which melodic playing is stressed and deal with reading, notation problems and interpretation of all styles of music. Unlimited repeatability.

MUS 241 Perceiving the Arts (3) The purpose of this course is to develop and extend perception and understanding of the constituent elements of music, theatre, visual arts and dance. The student will explore, encounter and discuss varied art forms and media as integral parts of the processes of reading, attending arts events and critical writing.

MUS 243 History of Music I (3) The history of change in music from earliest times through the 16th Century to the end of the Baroque Period with emphasis on the changes in style.

MUS 244 History of Music II (3) A study of historical changes that took place in music in the Classic and Romantic Periods and the 20th Century.

MUS 246 Music in American History and Culture (3) The purpose of this course is to examine select areas of American music in a historical and cultural framework. Material to be discussed includes musical traditions of various ethnic groups.

MUS 247 Music Cultures of the World (3) The purpose of this course is to increase the student's understanding and appreciation of the music of other cultures through the study of many types of folk music and an introduction to the methods of ethnomusicology.

MUS 260 Intermediate Class Piano I (1)
Prerequisite: MUS 102, MUS 161 or consent of instructor. Functional piano for music majors with slight background in piano. Expand basic skills in sight-reading, harmonization and technique to early intermediate piano level. Fee required.

MUS 261 Intermediate Class Piano II (1)
Prerequisite: MUS 260 or consent of instructor. Develop further reading skills, techniques and styles necessary to play simple accompaniments and intermediate piano music. Fee required.

MUS 265 Individual Performance in Collaborative Piano (2-4) Consent of instructor. In-depth study of repertoire and refinement of skills for the collaborative pianist. Unlimited repeatability. Fee required.

MUS 266 Madrigal Singers (1) Membership in the Concert Choir required or by special permission. The UNC Madrigal Singers is a highly select group of 16 to 20 performers. The group performs a wide variety of choral chamber works in concerts throughout the year. Unlimited repeatability.

MUS 267 University Symphony Orchestra (1-3) Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of the modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Unlimited repeatability.

MUS 268 Chamber Orchestra (1) Audition required. Comprised of outstanding strings and selected winds, this group performs literature from the Baroque to the present, specializing in material specifically designed for chamber orchestra. The ensemble presents concerts regularly on and off campus. Unlimited repeatability.

MUS 269 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4) Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Unlimited repeatability. Fee required for non-majors.

MUS 270 Individual Performance in Voice (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 271 Individual Performance in Piano (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 272 Individual Performance in Organ (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 273 Individual Performance in Strings (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 274 Individual Performance in Woodwinds (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 275 Individual Performance in Brass (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 276 Individual Performance in Percussion (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 277 Individual Instruction in Composition (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 278 Individual Performance in Harp (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 279 Individual Performance in Guitar (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 280 Mixed Concert Choir (1) Audition required. Limited to approximately 60-65 singers and is open to all students. The Choir performs a wide range of literature, from the classics to contemporary works. Widely recognized for its excellence, the Concert Choir performs concerts on campus and tours annually. Unlimited repeatability.

MUS 281 Women's Glee Club (1) Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Unlimited repeatability.

MUS 282 University Singers (1) Audition required; membership in Concert Choir or consent of instructor. This select group of 25 singers performs an extremely varied repertoire, from Renaissance motets to contemporary works. Unlimited repeatability.

MUS 284 Men's Glee Club (1) Audition required. Open to all University men, this group performs often on campus and in the community, in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folk songs and popular music. Unlimited repeatability.

MUS 285 Performance in Opera Theatre (1-3) Audition required. Practical experience in the production and performance of a complete operatic work. Techniques of acting, singing, character analysis and stage direction will be studied. Unlimited repeatability.

MUS 286 Scene Studies in Opera (1-3) Audition required. Studying techniques of acting, singing, character analysis and stage deployment through the staging and performing of selected opera scenes and arias. Unlimited repeatability.

MUS 287 Summer Symphonic Band (1-3) Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Unlimited repeatability.

MUS 288 Concert Band (1-3) Audition required. Comprised of music majors and students from other disciplines. Members perform a wide variety of interesting literature selected from standard and current repertoire. Unlimited repeatability.

MUS 289 University Brass Choir (1) Audition required. Select performing ensemble of 21 brass and percussion students. Concentrate on literature for brass instrumental media, development of musical sensitivity, phrasing, style and intonation. Major ensemble credit. Unlimited repeatability.

MUS 290 Symphonic Band (1-3) Audition required. Selected from the finest performers on campus. Although most members are music majors, students specializing in other fields often qualify for this ensemble. Literature is drawn from contemporary and traditional repertoire. Unlimited repeatability.

MUS 291 Wind Ensemble (1-3) Audition required. Comprised of the most outstanding wind and percussion majors in the School of Music. The ensemble performs a repertoire of works requiring from 8 to 35 performers. Unlimited repeatability.

MUS 292 Marching Band (1) Audition required. Open to all university students. To develop marching/playing skills by utilizing current practices in marching band formation design and special marching band musical arrangements. Unlimited repeatability.

MUS 297 Summer Festival Orchestra (1-3) Audition required. Serves as the nucleus of the summer music festival, presenting two concerts and accompanying the opera. Unlimited repeatability.

MUS 301 18th Century Counterpoint (2) Prerequisite: MUS 202. A study of two- and three-voice counterpoint as found in the invention, canon, fugue and chorale prelude. Fee required.

MUS 302 Form and Analysis (2) Prerequisite: MUS 202. The study of homophonic forms, beginning with the motif and continuing with the analysis of the sonata, rondo and variation forms.

MUS 303 Instrumentation (2) Prerequisite: MUS 202. A course planned to develop knowledge and skill in arranging and orchestrating for various combinations of instruments from a few instruments to a full symphony orchestra. Fee required.

MUS 307 History of Instruments and Instrumental Practice (3) A historical study of the development of musical instruments and the performance practices associated with them.

MUS 308 Music Workshop (1-4) Receive information about current important ideas in many fields of knowledge from authorities nationally known in their fields of specialization. S/U graded. Unlimited repeatability.

MUS 309 Advanced MIDI and Sequencing (2) Prerequisite: MUS 209. An introduction to skills needed for success in the music industry. Among the topics discussed will be creating "humanized" computer playback, and synchronizing computer playback to video and other sources.

MUS 310 Teaching General Music in Elementary Schools (2) Prerequisite: MUS 210. Admission to PTEP required. A comprehensive study of the teaching of music to students in elementary school general music classes. Clinical experiences required.

MUS 311 Teaching General Music in Secondary Schools (2) Prerequisite: MUS 310. Study the role and nature of required and elective general music, arts and humanities courses in junior and senior high schools.

MUS 312 Teaching Instrumental Music in Elementary Schools (2) Prerequisite: MUS 210. Admission to PTEP required. Examine materials, methods and procedures for teaching instrumental music in elementary schools. In-class presentations and clinical experience required.

MUS 314 Guitar in the Classroom (1) Music majors only or consent of instructor. Learn to play guitar, including basic folk and classical techniques. Approached from a pedagogical, accompaniment and conceptual standpoint useful for the development of a guitar program in public school music curriculum and for accompaniment development in the general music and vocal public school program.

MUS 317 Teaching Instrumental Music in Secondary Schools (2) Required clinical experience arranged. Prerequisite: MUS 312. Full admittance to PTEP required. Investigate the factors relating to the teaching of Instrumental music in the secondary school and develop an understanding of the administrative skills necessary to develop and maintain an outstanding secondary instrumental music program.

MUS 318 Music in Early Childhood (2) Prerequisite: MUS 202 or MUS 206. Explore a broad range of teaching ideas that nurture musicality in children ages two to seven.

MUS 319 Instrumental Techniques and Conducting (1) Prerequisite: MUS 202. Develop effective hand and baton technique; learn drill and various meter patterns, tempo, style, dynamics, musical terms; study and perform musical scores, using a laboratory band and orchestra.

MUS 320 Wind Literature, Pedagogy and Conducting (2) Prerequisite: MUS 319. Designed to continue conducting instruction begun in MUS 319, with emphasis on wind literature and rehearsal techniques appropriate for elementary through high school bands.

MUS 323 Choral Techniques and Conducting (2) Prerequisite: MUS 202. Develop basic conducting technique as a choral musician. Study and apply meter patterns, preparatory beats, cueing and releases. Discuss tone production, diction, blend, score preparation and rehearsal techniques.

MUS 324 Choral Conducting and Pedagogy for Elementary and Secondary Schools (2) Prerequisite: MUS 323. Continue work begun in MUS 323, refining conducting techniques; studying more complex scores; other advanced problems in conducting; examining materials, methods and procedures relevant to teaching vocal music in elementary and secondary schools.

MUS 325 Choral Methods and Literature for Elementary and Secondary Schools (1) Prerequisite: MUS 320 or MUS 323 or consent of instructor. Examine choral literature for use with elementary through high school choral organizations.

MUS 328 Intermediate Jazz Improvisation (2) Prerequisite: MUS 223 or consent of instructor. Audition required. Further develop ability to create and perform jazz solos involving more complex chord progressions and rhythmic and formal frameworks. Cover effective techniques and materials for teaching these skills at secondary levels.

MUS 330 String Techniques (1) The study of the problems of string playing through performance on string instruments and the study of available literature for teaching strings in preparation for establishing string classes upon graduation.

MUS 331 String Pedagogy and Literature for the Instrumental Music Teacher (2) Prerequisites: MUS 319, MUS 330 or consent of instructor. Laboratory required. Full admittance to PTEP required. Additional studies in string performance and literature are presented for the instrumental B.M.E. major.

MUS 334 Acting for Singers (2) Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement. Repeatable up to one time.

MUS 336 German Art Song (3) An introduction to the origins of the art song form with in-depth study of the German art song from its historical beginnings through the present day.

MUS 338 French/Italian Art Song (2) Course in the performance of 19th and 20th Century French and Italian Art Song with particular emphasis upon style, technical requirements and diction.

MUS 339 British/American Art Song (2) In-depth study of British and American art song. Emphasis will be on research and performance of 20th century materials.

MUS 340 Survey of History and Literature of Jazz (3) An in-depth study of the history and literature of jazz from its beginnings to the present. Listening skills and critical writing skills are stressed. Open to all students.

MUS 346 Jazz Arranging, Small Ensembles and Big Bands (2) Prerequisite: MUS 202 or consent of instructor. Learn the art of calligraphy, the basics for arranging for small jazz ensembles and work with big band scoring.

MUS 347 Jazz Arranging, Vocal Jazz and Studio Orchestra (2) Prerequisite: MUS 346/546 or consent of instructor. Continuance of MUS 346 with focus on vocal jazz and studio orchestra composition. Performance of material at end of semester by studio orchestra and vocal jazz ensemble. Fee required.

MUS 348 Accompanying and Coaching I (2) Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, technique and 4-hand repertoire. Class performances required. Unlimited repeatability.

MUS 349 Accompanying and Coaching II (2) Prerequisite: MUS 348/548 or consent of instructor. Acquaint students with skills needed for collaborative performance through score reduction and discussion, listening and performance of song and instrumental literature. Class performances required. Unlimited repeatability.

MUS 352 Principles of Piano Teaching I (2) Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

MUS 353 Principles of Piano Teaching II (2) Prerequisite: MUS 352/552 or consent of instructor. A study of the methods of teaching musicianship and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.

MUS 356 Marching Band Techniques (1) Designed to develop the necessary skills and knowledge needed to organize, administer, plan and teach marching band shows. Clinical experience required.

MUS 359 Woodwind Class (1) Required of all Music majors with vocal, piano and general emphasis. Cover the fundamentals of woodwind instruments and training literature for woodwinds.

MUS 360 Voice Class (1) Beginning instruction in singing. Primarily for the student who is not a voice major. Study will involve the elements of a basic technique for singing and beginning solo repertoire.

MUS 361 Clarinet and Saxophone Class (1) Develop a teaching knowledge of clarinet and saxophone, their problems, functions and possibilities. As a prospective teacher, learn pedagogic and concert literature to understand tone production problems and acquire sufficient skill to demonstrate the instruments.

MUS 362 Double Reed and Flute Class (1) Develop a teaching knowledge of the flute, oboe and bassoon. As a prospective teacher, learn pedagogic and concert literature and sufficient skills to demonstrate the instruments.

MUS 364 Brass and Percussion Class (2) Prerequisite: MUS 102. Develop a teaching knowledge of the brass and percussion instruments. Acquire sufficient playing skill for purposes of demonstration.

MUS 367 Materials and Techniques for Brass and Percussion (1) Required of all music majors with vocal, piano and general music emphasis (B.M.E.). Covers the teaching fundamentals of brass and percussion instruments.

MUS 403 Acoustics of Music (2) A study of the physical properties of sound as compared with the psychoacoustical characteristics of perceived experience. Emphasis is placed on practical applications in music that are of value to the musician.

MUS 404 Jazz Methods and Materials (1) Majors only. An overview of literature, methodologies, and teaching strategies for the junior high/high school music educator. Hands on experience with conducting and rehearsing literature appropriate to the age level.

MUS 406 UNC String Project Pedagogy and Supervised Teaching Practicum (1-2) Consent of Director, UNC String Project. Qualified students are assigned to specific, supervised string teaching assignments. Students are continuously involved in planning/teaching process on a weekly basis, including pedagogical class sessions. Credit hours, not to exceed two per semester, dependent upon classroom/clinical experience hours assigned. Unlimited repeatability.

MUS 407 Individual Coaching in Musical Theatre Repertory I (3) Prerequisites: MUS 260 or MUS 469 (6 hours) or by audition, THEA 360. Corequisite: MT 465. A laboratory course to provide the advanced student with training in integrating music and theatre techniques. Special emphasis on preparation of audition materials and resumes. Class meets 4 hours per week. Repeatable, maximum six credits.

MUS 410 Vocal Pedagogy (2) An introduction to the science and teaching of singing. Emphasis is placed upon the study of the skeletal system and the muscles involved in breathing and phonation, vocal acoustics and learning theories, past and present.

MUS 414 Contemporary Issues in Music Education (2) Prerequisite: MUS 206 or MUS 310. Full admittance to PTEP required. Designed to examine contemporary issues in music education. Study will include issues such as the inclusion of students with handicapping conditions into the classroom and trends in assessments of musical growth for all students.

MUS 415 Keyboard Literature I (2) Sightreading at Level III or above required. The study of keyboard music from its earliest beginnings through the works of Frederic Chopin and Robert Schumann. Offered every other year.

MUS 416 Keyboard Literature II (2) Sightreading at Level III or above required. Concentrate on keyboard works from Franz Liszt and Johannes Brahms through the Twentieth Century. Offered every other year.

MUS 421 Small Jazz Ensembles (1) Open to any student by audition. Groups consist of a rhythm section plus 3 or 4 horns. Unlimited repeatability.

MUS 422 Directed Studies in Music (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MUS 424 Vocal Jazz Ensembles (1) Audition required. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Sing standard jazz literature; sing scat and deal with contemporary jazz notation. Perform on and off campus. Open to any UNC student. Unlimited repeatability.

MUS 425 Jazz Ensemble (1) Audition required. For brass, woodwind and rhythm players. Concentrate on jazz idiom music. Get thorough preparation for teaching at both secondary and college levels. Unlimited repeatability.

MUS 426 Orchestral Excerpts: Percussion (1) Consent of Instructor. Emphasis is on professional level performance of standard orchestral literature. Unlimited repeatability.

MUS 427 Orchestral Excerpts: Strings (1) Consent of Instructor. Emphasis is on professional level performance of standard orchestral literature. Separate classes in violin, viola, cello and bass, depending on need. Unlimited repeatability.

MUS 428 Orchestral Excerpts: Brass (1) Consent of Instructor. Emphasis is on professional level performance of standard orchestral literature. Separate excerpts classes in trumpet, horn and low brass offered. Unlimited repeatability.

MUS 429 Orchestral Excerpts: Woodwind (1) Consent of Instructor. Depending on need, separate excerpt classes in bassoon, clarinet, flute and oboe are offered. Unlimited repeatability.

MUS 430 String Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 431 Brass Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 432 Woodwind Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 433 Percussion Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 435 Classical Guitar Ensemble (1) Audition required. Perform in an ensemble in which melodic playing is stressed and deal with reading and notation problems and the interpretation of all styles of music. Unlimited repeatability.

MUS 444 English Diction (1) A course in the performance of English Song Literature with particular emphasis upon the problems of singing in one's own language.

MUS 445 German Diction (1) A course in the performance of 19th and 20th century German art song, with particular emphasis upon style and diction.

MUS 446 French Diction (1) A course in the performance of 19th and 20th century French art song, with particular emphasis upon style and diction.

MUS 447 Italian Diction (1) A course in the performance of songs and airs written before the 19th century, with particular emphasis upon style and diction. Unlimited repeatability.

MUS 448 Collegium Musicum (1) Audition required. This performing group is concerned with little-performed music of all types. The goal of the organization is to give the student experience in preparing and performing early music, music for unusual media and experimental music of all types. Unlimited repeatability.

MUS 450 Seminar in Student Teaching for Music Educators (1) Full admittance to PTEP required. This seminar is designed to provide student teachers in music education with pertinent information and a support system that will aid them during their field experience.

MUS 452 Orff Schulwerk and Kodaly Choral Method in American Schools (2) Prerequisite: MUS 206 or MUS 310. A comparative study of Orff and Kodaly approaches to teaching music including philosophy, instructional principles, activities and current materials.

MUS 454 Pedagogical Approaches to Keyboard Literature (2) Evaluate various approaches to the study of keyboard literature through student participation in teaching and performing. Unlimited repeatability.

MUS 457 Multicultural Music Education (2) Prerequisite: MUS 210. Study of potential music educational practices within a multicultural school environment. Emphasis is given to concepts of pluralism in American society.

MUS 465 Individual Performance in Collaborative Piano (2-4) Prerequisites: MUS 348, MUS 349, MUS 265 or consent of instructor. In depth study of repertoire and refinement of skills for the collaborative pianist. Unlimited repeatability. Fee required for non-majors.

MUS 466 Madrigal Singers (1) Membership in the Concert Choir required or by special permission. The UNC Madrigal Singers is a highly select group of 16 to 20 performers. The group performs a wide variety of choral chamber works in concerts throughout the year.

MUS 467 University Symphony Orchestra (1-3) Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of the modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Unlimited repeatability.

MUS 468 Chamber Orchestra (1) Audition required. Comprised of outstanding strings and selected winds, this group performs literature from the Baroque to the present, specializing in materials specifically designed for chamber orchestra. The ensemble presents concerts regularly on and off campus. Unlimited repeatability.

MUS 469 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4) Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Unlimited repeatability. Fee required for non-majors.

MUS 470 Individual Performance in Voice (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 471 Individual Performance in Piano (2-4) Consent of Instructor. Unlimited repeatability. Fee required for non-majors.

MUS 472 Individual Performance in Organ (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 473 Individual Performance in Strings (2-4) Consent of Instructor. Unlimited repeatability. Fee required for non-majors.

MUS 474 Individual Performance in Woodwinds (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 475 Individual Performance in Brass (2-4) Consent of Instructor. Unlimited repeatability. Fee required for non-majors.

MUS 476 Individual Performance in Percussion (2-4) Consent of Instructor. Unlimited repeatability. Fee required for non-majors.

MUS 477 Individual Instruction in Composition (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 478 Individual Performance in Harp (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 479 Individual Performance in Guitar (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 480 Mixed Concert Choir (1) Audition required. Limited to approximately 60-65 singers and open to all students. The Choir performs a wide range of literature, from the classics to contemporary works. Widely recognized for its excellence, the Concert Choir performs concerts on campus and tours annually. Unlimited repeatability.

MUS 481 Women's Glee Club (1) Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Unlimited repeatability.

MUS 482 University Singers (1) Membership in Concert Choir required. Audition required. This select group of approximately 25 singers performs an extremely varied repertoire, from Renaissance motets to contemporary works. Unlimited repeatability.

MUS 484 Men's Glee Club (1) Audition required. Open to all University men, this group performs often on campus and in the community, in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folk songs and popular music. Unlimited repeatability.

MUS 485 Performance in Opera Theatre (1-12) Audition required. Practical experience in the production and performance of a complete operatic work. Techniques of acting, singing, character analysis and stage direction will be studied. Unlimited repeatability.

MUS 486 Scene Studies in Opera (1-3) Audition required. Studying techniques of acting, singing, character analysis and stage deportment through the staging and performing of selected opera scenes and arias. Unlimited repeatability.

MUS 487 Summer Symphonic Band (1-3) Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Unlimited repeatability.

MUS 488 Concert Band (1-3) Audition required. Comprised of music majors and students from other disciplines. Members perform a wide variety of interesting literature selected from standard and current repertoire. Unlimited repeatability.

MUS 489 University Brass Choir (1) Audition required. Select performing ensemble of 21 brass and percussion students. Concentrate on literature for brass instrumental media, development of musical sensitivity, phrasing, style and intonation. Major ensemble credit. Unlimited repeatability.

MUS 490 Symphonic Band (1-3) Audition required. Selected from the finest performers on campus. Although most members are music majors, students specializing in other fields often qualify for this ensemble. Literature is drawn from contemporary and traditional repertoire. Unlimited repeatability.

MUS 491 Wind Ensemble (1-3) Audition required. Comprised of the most outstanding wind and percussion majors in the School of Music. The ensemble performs a repertoire of works requiring from 8 to 35 performers. Unlimited repeatability.

MUS 492 Marching Band (1) Audition required. Open to all university students. To develop marching/playing skills by utilizing current practices in marching band formation design and special marching band musical arrangements. Unlimited repeatability.

MUS 497 Summer Festival Orchestra (1-3) Audition required. Serves as the nucleus of the summer music festival presenting two concerts and accompanying the opera. Unlimited repeatability.

MUS 501 18th Century Counterpoint (2) Prerequisite: MUS 202. Study of two- and three-voice counterpoint as found in the invention, canon, fugue and chorale prelude. Fee required.

MUS 502 Harmony and Form I (3) Study 18th and early 19th century harmonic practice and tonality concepts.

MUS 503 Harmony and Form II (3) Prerequisite: MUS 502 or consent of instructor. The study of late 19th and 20th century harmonic and formal concepts.

MUS 505 Sixteenth Century Counterpoint (3) Study the style of 16th century polyphonic music, emphasizing actual period music as well as theoretical concepts. Compose two-, three- and four-voice motets.

MUS 506 UNC String Project Pedagogy and Supervised Teaching Practicum (1-2) Consent of Director, UNC String Project. Qualified students are assigned to specific, supervised string teaching assignments. Students are continuously involved in planning/teaching process on a weekly basis, including pedagogical class sessions. Credit hours, not to exceed two per semester, dependent upon classroom/clinical experience hours assigned. Unlimited repeatability.

MUS 507 History of Instruments and Instrumental Practices (3) A historical study of the background and development of musical instruments, with emphasis on the related performance practices.

MUS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Unlimited repeatability.

MUS 509 Electronic Music (3) Describe materials used in electronic music and the techniques and equipment employed to transform and organize these into compositions. Students learn to use the synthesizer.

MUS 510 Vocal Pedagogy (2) An introduction to the science and teaching of singing. Emphasis is placed upon the study of the skeletal system and the muscles involved in breathing and phonation, vocal acoustics and learning theories, past and present.

MUS 511 History and Literature of the Wind Band (2) A survey of the origins, development and historical significance of the wind band, including an overview of its literature, instrumentation and growth in Europe and in the United States.

MUS 512 Symphonic Repertoire (2) Historical overview of the symphony orchestra and its literature. Addresses questions of style, performance, practice and programming. Includes a unit of study on music for younger orchestras.

MUS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Unlimited repeatability.

MUS 515 Keyboard Literature I (2) Sightreading at Level III or above required. The study of keyboard music from its earliest beginnings through the works of Frederic Chopin and Robert Schumann. Offered every other year.

MUS 516 Keyboard Literature II (2) Sightreading at Level III or above required. Concentrate on keyboard works from Franz Liszt and Johannes Brahms through the twentieth century. Offered every other year.

MUS 519 Foundations of Music Education (3) Study historical, philosophical and psychological issues and principles that provide the context for contemporary music education.

MUS 521 Saxophone Pedagogy (2) Consent of instructor. Develop teaching techniques for the saxophone in the areas of performance, style, repertoire, intonation and historical perspective.

MUS 524 Flute Pedagogy (2) Consent of instructor. Majors only. Develop teaching techniques for the flute in the areas of performance, style, repertoire, intonation and historical perspective. Unlimited repeatability.

MUS 525 Oboe Pedagogy (2) Consent of instructor. Majors only. Develop teaching techniques for the oboe in the areas of performance, style, repertoire, intonation and historical perspective. Unlimited repeatability.

MUS 533 Curriculum Trends in Music Education (3) Study curriculum trends in music education, including methods of teaching, curriculum development and aesthetic education.

MUS 534 Acting for Singers (2) Instruction in the special needs of the singer/actor: staging of arias, improvisation, freeing the voice through movement.

MUS 536 German Art Song (3) An introduction to the origins of the art song form with in-depth study of the German art song from its historical beginnings through the present day.

MUS 538 French/Italian Art Song (2) Course in the performance of 19th and 20th century French and Italian Art Song with particular emphasis upon style, technical requirements and diction.

MUS 539 British/American Art Song (2) In-depth study of British and American art song. Emphasis will be on research and performance of 20th century materials.

MUS 542 Jazz Pedagogy (2) Graduate and qualified senior music majors only. Takes a pedagogical approach to the analysis of jazz ensemble scores, rehearsal techniques and rhythm sections. Looks at concert planning and audience building.

MUS 543 Jazz Program Administration, Planning and Development (2) Graduate students and qualified senior Music majors. Deal with public relations, grant writing, promotion, programming, recruiting and other aspects of the development of a Jazz Studies Program. Learn planning and follow-through of the annual Jazz Festival.

MUS 546 Jazz Arranging, Small Ensembles and Big Bands (2) Prerequisite: MUS 202 or consent of instructor. Learn the art of calligraphy, the basics for arranging for small jazz ensembles and work with big band scoring.

MUS 547 Jazz Arranging, Vocal Jazz and Studio Orchestra (2) Prerequisite: MUS 546 or consent of instructor. Continuance of MUS 546 with focus on vocal jazz and studio orchestra composition. Performance of material at end of semester by studio orchestra and vocal jazz ensemble. Fee required.

MUS 548 Accompanying and Coaching I (2) Consent of instructor. Acquaint students with necessary skills for collaborative performance through the study of listening, rhythm, sightreading, technique and 4-hand repertoire. Class performances required. Unlimited repeatability.

MUS 549 Accompanying and Coaching II (2) Prerequisite: MUS 548/548 or consent of instructor. Acquaint students with skills needed for collaborative performance through score reduction and discussion, listening and performance of song and instrumental literature. Class performances required. Unlimited repeatability.

MUS 550 Score Reading and Analysis (1) A continuing course dealing with analysis of wind/orchestral/choral literature. Emphasis is placed on relating analysis techniques to preparation and performance of compositions for wind/orchestral/choral ensemble. Literature studied will vary from semester to semester. Repeatable up to four times.

MUS 551 Individual Performance in Conducting (2) Continuing study of advanced problems in instrumental conducting. Emphasis is placed on physical and mental aspects of the art. Regular conducting experience with University ensembles is an integral part of the course. Repeatable up to four times.

MUS 552 Principles of Piano Teaching I (2) Compare current piano methods. Study technical and musical problems with a beginning student. Offered every other year.

MUS 553 Principles of Piano Teaching II (2) Prerequisite: MUS 552/552 or consent of instructor. A study of the methods of teaching musicianship and pianistic skills. Observe private and group lessons. Supervised teaching internship required. Offered every other year.

MUS 554 Pedagogical Approaches to Keyboard Literature I (2) Evaluate various approaches to the study of keyboard literature through student participation in teaching and performing. Unlimited repeatability.

MUS 559 Opera and Oratorio Literature (2) Study of the solo repertoire in opera and oratorio literature.

MUS 564 Problems in Teaching Voice (2) Prerequisite: MUS 410/510 and consent of instructor. Emphasis is placed upon practical aspects of vocal pedagogy: repertoire selection, program building, learning theories and teaching concepts. Advanced studies in vocal acoustics and anatomy and vocal problems are included.

MUS 565 Principles of Ensemble Intonation (1) Examine various tuning temperaments, emphasizing concepts of "just intonation" and its application to all flexible pitched ensembles. Employ electronic tuning devices with practical experience gained through small ensemble participation.

MUS 580 String Techniques for the Conductor (2) The conductor will acquire the necessary skills to make musical and technical decisions based on a thorough understanding of orchestral string techniques.

MUS 585 Advanced Jazz Improvisation (2) Consent of instructor. Develop skills in advanced jazz improvisation. Prepare highly chromatic material at various tempi. Study advanced jazz theory principles and apply to keyboard and other instrumental and vocal disciplines. Use music technology to enhance these skills. Course content will change each semester. Repeatable, no limitations.

MUS 600 Introduction to Musical Scholarship (2) An introduction to writing and scholarly research problems in music. Attitudes and aims of the music scholar, studies in bibliography, reference materials, sources, editions, oral and written reports, reviews, outline procedures and various types of research included. Required of all Masters of Music candidates. Must be taken as early as possible.

MUS 603 Analytical Studies in Music (3) Master of traditional harmony required. Students analyze the structure of music.

MUS 606 Graduate Seminar in Elementary School Music (3) Graduate standing and previous school music teaching experience. Broaden individual perspectives regarding content, materials, methodology and philosophy of teaching and learning general music in elementary schools.

MUS 607 Graduate Seminar in Junior and Senior High School Instrumental Music (3) Address problems encountered by instrumental music teachers in public schools. Participate as a contributor or lecturer on topics chosen by class.

MUS 609 Graduate Seminar in Middle and Junior High Choral and General Music (3) Graduate standing and school music teaching experience. Discover materials, methodologies, philosophies and trends in teaching choral and general music at these levels.

MUS 610 Research in Music Education (3) Develop concepts and skills that will enable the music educator to understand and evaluate research in music education. Study the design and techniques of empirical research in music education. Complete a research study to present for publication consideration.

MUS 611 Comprehensive Musicianship in High School Choral Performing Groups (3) Make a comprehensive study of choral literature for high school performing groups, emphasizing the style, history, analysis, conducting, rehearsal techniques and performance of literature.

MUS 614 Seminar in Administration and Coordination of the School Music Program (3) Graduate standing and school music teaching experience. Overview problems of organizing, administering and coordinating K-12 music programs, including curriculum, teacher growth, scheduling, budget and public relations.

MUS 621 Small Jazz Ensembles (1) Open to any student by audition. Groups consist of rhythm section plus 3 or 4 horns. Groups are listed in Music degree section of this Bulletin. Unlimited repeatability.

MUS 622 Directed Studies in Music (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

MUS 623 Individual Studies in Effective Teaching (1-3) Designed according to candidate's primary emphasis and satisfies the Seminar in Teaching (discipline) required of all D.A. candidates in Music. Repeatable, maximum three credits.

MUS 624 Vocal Jazz Ensembles (1) Audition required. Graduate student only. Each ensemble limited to 20 voices: 4 sopranos, 4 altos, 4 tenors, 4 baritones, 4 basses, plus rhythm section and horns. Sing standard jazz literature; sing scat and deal with contemporary jazz notation. Perform on and off campus. Unlimited repeatability.

MUS 625 Jazz Ensembles (1) Audition required. Instrumentation is brass, woodwind and rhythm. Concentrate on jazz idiom music: show and dance music and concert jazz. Receive thorough preparation for teaching at both secondary and college levels. Unlimited repeatability.

MUS 628 Collegium Musicum (1) Audition required. Majors only. This performing group specializes in historically informed performance of early music. Historical treatises, appropriate ornamentation and improvisation and pre-19th century styles are the focus of the class. Unlimited repeatability.

MUS 630 String Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 631 Brass Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 632 Woodwind Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 633 Percussion Ensemble (1) Small chamber groups that rehearse regularly and are coached by a faculty member. Unlimited repeatability.

MUS 635 Classical Guitar Ensemble (1) Audition required. Perform in an ensemble in which melodic playing is stressed, deal with reading and notation problems and the interpretation of all styles of music. Unlimited repeatability.

MUS 643 Seminar: Medieval Music (3) A study of musical style in its historical, theoretical and practical aspects during the Middle Ages.

MUS 644 Seminar: Music in the Renaissance (3) A cultural and historical examination of music and musical style during the 15th and 16th centuries. Flemish composers, the Madrigal, the Venetian School and similar subjects will receive special attention.

MUS 645 Seminar: The Baroque Period (3) Music from 1600 to 1750. Investigate opera from Florentine beginnings in 1600, through Venetian, Neapolitan and French styles to 1750; growth of chamber, orchestral and solo instrumental music, religious vocal music and principal forms.

MUS 646 Seminar: The Classic Period (3) Historical and cultural influences bearing upon emergence of 18th century classicism in music. The composers, representative works, forms, styles and media of the Classic era.

MUS 647 Seminar: The Romantic Period (3) Representative composers, musical styles, works, related literary movements, aesthetic theories and musical criticism of the period will be researched and discussed.

MUS 648 Seminar: Music in the Twentieth Century (3) A study of the major trends in the music of the twentieth century accompanied by an investigation into their social and cultural bases. The technical aspects of twentieth century music are more thoroughly investigated in the companion course, MUS 503.

MUS 650 Seminar: Choral Music (2) A seminar to allow discussion of a variety of subjects related to choral literature. Individual projects will be assigned, calling for creative research.

MUS 653 Vocal Literature and Styles (3) A study of the stylistic, aesthetic and repertorial aspects of vocal music, including opera and choral music, through the various historical periods in music.

MUS 657 Instrumental Literature and Styles (3) A study of the stylistic, aesthetic and repertorial aspects of instrumental music, including orchestral and chamber music, through the various historical periods in music.

MUS 658 Brass Pedagogy (3) Prerequisite: MUS 364 or consent of instructor. In-depth study of brass materials and performance techniques. Class is designed to help solve specific brass teaching problems encountered by the experienced teacher at the K-12 and college levels.

MUS 661 Percussion Pedagogy (2) Prerequisite: MUS 364 or consent of instructor. Explore advanced techniques, methods and materials related to all the percussion instruments.

MUS 662 Woodwind Pedagogy (2) Prerequisites: MUS 361, MUS 362 or consent of instructor. Majors only. In depth study of teaching material and techniques related to the flute, clarinet, saxophone, oboe and bassoon. Designed to explore the problems and solutions encountered by the teacher of woodwind instruments at the K-12 level.

MUS 665 Individual Performance in Collaborative Piano (2-4) Prerequisites: MUS 348, MUS 349 and MUS 465 or consent of instructor. In depth study of repertoire and refinement of skills for the collaborative pianist. Unlimited repeatability.

MUS 666 Madrigal Singers (1) Membership in the Concert Choir required or by special permission. The UNC Madrigal Singers is a highly select group of 16 to 20 performers. The group performs a wide variety of choral chamber works in concerts throughout the year. Unlimited repeatability.

MUS 667 University Symphony Orchestra (1-3) Audition required. Comprised of the best string, wind, brass and percussion players. Read and perform standard repertoire of modern symphony orchestra. Perform concerts regularly both on and off campus. Annually sponsors a Concerto Competition. Unlimited repeatability.

MUS 668 Chamber Orchestra (1) Audition required. Comprised of outstanding and selected winds, this group performs literature from the Baroque to the present, specializing in material specifically designed for chamber orchestra. The ensemble presents concerts regularly on and off campus. Unlimited repeatability.

MUS 669 Individual Performance in Voice for Those with Non-Voice Emphasis (2-4) Consent of instructor. Instruction concentrates on fundamental principles of voice production. Development of rhythmic and melodic accuracy receives primary consideration. Unlimited repeatability. Fee required for non-majors.

MUS 670 Individual Performance in Voice (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 671 Individual Performance in Piano (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 672 Individual Performance in Organ (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 673 Individual Performance in Strings (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 674 Individual Performance in Woodwinds (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 675 Individual Performance in Brass (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 676 Individual Performance in Percussion (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 677 Individual Instruction in Composition (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 678 Individual Performance in Harp (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 679 Individual Performance in Guitar (2-4) Consent of instructor. Unlimited repeatability. Fee required for non-majors.

MUS 680 Mixed Concert Choir (1) Audition required. Limited to approximately 60-65 singers. Open to all students. The Choir performs a wide range of literature, from the classics to contemporary works. Widely recognized for its excellence, the Concert Choir performs concerts on campus and tours annually. Unlimited repeatability.

MUS 681 Women's Glee Club (1) Audition required. Membership in this group of 30-40 singers is open to all female students. The Glee Club performs concerts on campus each semester and joins with the Concert Choir in performance of large masterworks with orchestra. Unlimited repeatability.

MUS 682 University Singers (1) Audition required. Membership in Concert Choir required or consent of instructor. This select group of 25 singers performs an extremely varied repertoire from Renaissance motets to contemporary works. Unlimited repeatability.

MUS 684 Men's Glee Club (1) Audition required. Open to all University men, this group performs often on campus and in the community, in addition to touring within the state. The Men's Glee Club sings a wide variety of literature from sacred anthems to spirituals, folk songs and popular music. Unlimited repeatability.

MUS 685 Performance in Opera Theatre (1-12) Audition required. Practical experience in the production and performance of a complete operatic work. Techniques of acting, singing, character analysis and stage direction will be studied. Unlimited repeatability.

MUS 686 Scene Studies in Opera (1-3) Audition required. Studying techniques of acting, singing, character analysis and stage department through the staging and performing of selected opera scenes and arias. Unlimited repeatability.

MUS 687 Summer Symphonic Band (1-3) Audition required. Open to all students interested in performing the highest quality literature available. The Summer Season consists of five outdoor concerts. Unlimited repeatability.

MUS 688 Concert Band (1-3) Audition required. Comprised of music majors and students from other disciplines. Members perform a wide variety of interesting literature selected from standard and current repertoire. Unlimited repeatability.

MUS 689 University Brass Choir (1) Select performing ensemble of 21 brass and percussion students. Concentrate on literature from brass instrumental media. Develop musical sensitivity, phrasing, style and intonation. Major ensemble credit. Unlimited repeatability.

MUS 690 Symphonic Band (1-3) Audition required. Selected from the finest performers on campus. Although most members are music majors, students specializing in other fields often qualify for this ensemble. Literature is drawn from contemporary and traditional repertoire. Unlimited repeatability.

MUS 691 Wind Ensemble (1-3) Audition required. Comprised of the most outstanding wind and percussion majors in the School of Music. The ensemble performs a repertoire of works requiring from 8 to 35 performers. Unlimited repeatability.

MUS 692 Marching Band (1) Audition required. Open to all university students. To develop marching/playing skills by utilizing current practices in marching band formation design and special marching band musical arrangements. Unlimited repeatability.

MUS 693 Practicum in Music (1-4) Open only by invitation to resident graduate students. Supervised professional activity in the major field, approximately two hours per day. Two copies of a well-written paper must be filed with instructor before credit is given. Unlimited repeatability.

MUS 695 Special Topics in Music (1-4) A seminar covering areas in performance, research, education, history and theory that are of concern to the contemporary graduate student. Topics will vary according to student interest and needs. Repeatable, under different subtitles.

MUS 697 Summer Festival Orchestra (1-3) Audition required. Serves as nucleus of the Summer Music Festival, presents two concerts and accompanies the opera. Unlimited repeatability.

MUS 699 Thesis (1-6) Required of Master of Music Education students pursuing Track IV and Master of Music students majoring in Theory and Composition. Consult respective department for specific requirements. S/U graded. Unlimited repeatability.

MUS 700 Introduction to Doctoral Research (3) Analytical studies in music writing and research techniques for dissertation and field studies; survey critical problems in music; prepare research and proposal outlines.

MUS 794 Supervised Practicum in College Teaching (2) Observe and practice college teaching under supervision and as a basis for analysis of learning experiences. Repeatable, maximum six credits.

MUS 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Repeatable, maximum four credits.

MUS 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Unlimited repeatability.

NURS - Nursing

NURS 200 Women's Health Care (3) For students of any major. Examines women's health care concerns over the adult life span and the accompanying psychological, sociological and cultural implications. Includes an historical perspective.

NURS 300 Conceptual Foundations (3) Clinical Level III status. Introduces the self-care conceptual basis of nursing practice and the professional nurse's role with patients. Emphasizes self-care theory, nursing process, ethical-legal principles and nursing care plans.

NURS 301 Physical Assessment Theory (2) Clinical Level III status. Theoretical introduction to nursing physical assessment as a component of nursing process incorporating the self-care framework. Emphasis on the utilization of the techniques of inspection, palpation, percussion and auscultation.

NURS 302 Physical Assessment Laboratory (.5) Clinical Level III status. Corequisite: NURS 301. Clinical practice in basic physical examination. S/U graded.

NURS 303 Basic Nursing Practice (4) (8 laboratory) Clinical Level III status. A course involving simulated and living laboratory experiences that enable the student to achieve beginning skills in assisting patients in activities of daily living and skills in therapeutic nursing measures. S/U graded.

NURS 304 Childbearing Families (3) Clinical Level III status. Provides knowledge to develop and implement nursing care in relationship to families in their reproductive years, emphasizing the development and maximization of self-care capabilities.

NURS 305 Conceptual Foundations for RNs (4) RN admitted to the School of Nursing required. Bridge course for RN students which explores the conceptual basis of professional nursing including nursing theory, the self-care framework, legal principles and nurse-client interactions.

NURS 306 Nursing Care of Children (3) Prerequisites: NURS 300, NURS 301, NURS 303. Provides knowledge to develop and implement nursing care with both well and sick children as individuals within families. Emphasis on maximizing the self-care capabilities of children within families.

NURS 309 Nursing Care of the Adult I (3) Clinical Level III status. Concepts essential for nursing care of adults requiring medical/surgical interventions for self-care deficits due to illness or injury including the physiological, psychosocial and preventative aspects of care.

NURS 310 Foundations of Professional Practice I (3) Majors only. Admission into clinical program. Explores the roles of the professional nurse in multidimensional health care settings. Concepts of professionalism, accountability and theory-based practice are introduced.

NURS 312 Health Assessment (3) Corequisite: NURS 314. Majors only. Admission into clinical program. A theoretical health assessment course for healthy individuals, families and communities. It focuses on physical, mental, nutritional, developmental, cultural and community appraisals.

NURS 314 Health Assessment Practicum (2) Corequisite: NURS 312. Majors only. Application of health assessment techniques for individuals, families, and communities. Involves skills lab practice and clinical experiences in a variety of settings. S/U graded.

NURS 315 Clinical Research and Theory (3) Prerequisites: STAT 250, ENG 122. An introduction to scientific inquiry including the research critique and identification of researchable problems in clinical practice. The self-care framework of nursing is viewed in relation to clinical research.

NURS 317 HIV/AIDS Issues in Health Care (1)

Clinical level nursing student, RN, LPN or other health care professionals. Emphasizes psychosocial, ethical, legal and policy issues related to HIV/AIDS. Public health interventions will be explored and evaluated and the role of the health care professional. S/U graded.

NURS 318 Health Care Systems (3) For students of any major. Introduces the concepts of health and health care systems: explores philosophical, historical, political and professional relationships that exist in health care delivery.

NURS 319 Cultural Issues in Health Care (1) Identifies social and cultural influences on health care and emphasizes the application of transcultural theory concepts to nursing practice. S/U graded.

NURS 320 Basic EKG Interpretation (2)

Prerequisites: ZOO 341, ZOO 350. Clinical level nursing student or RN. An introduction to the basic concepts of EKG and arrhythmias recognition. S/U or letter graded.

NURS 321 Interpretation of Laboratory Data (1)

Clinical majors or consent of instructor. Designed to assist the nurse in understanding laboratory data. Emphasis is placed on those tests utilized for health promotion, maintenance and monitoring of disease progress.

NURS 324 Therapeutic Interventions (4) Clinical nursing majors only. Emphasis is on therapeutic interventions appropriate for individuals, families and communities across the life span in a variety of settings, focusing on psychomotor and communication skills. S/U graded.

NURS 326 Pathophysiology (3) Prerequisites: A previous basic anatomy and physiology course. A systems approach to alteration and disruption of physiologic functions. Focus on differentiation of pathophysiologic findings and identification of treatment modalities.

NURS 328 Health Assessment (for RNs only)

(4) Consent of instructor. A health assessment course for RNs which focuses on healthy individuals, families, and communities with particular emphasis on family and beginning community appraisal.

NURS 329 Nursing Care of the Adult II (3)

Clinical Level III status. Continued study of concepts essential for nursing care of adults requiring medical/surgical interventions for self-care deficits due to illness or injury including the physiological, psychosocial and preventative aspects of care.

NURS 335 Foundations of Professional Practice II (3)

Prerequisites: STAT 250, ENG 123. Majors only. Develops beginning research skills in relationship to the health outcomes throughout the lifespan. The emphasis will be on economics, education and culture.

NURS 340 Childbearing Families Practicum (5)

(10 laboratory) Clinical Level III status. Provides clinical opportunities to observe, apply and participate in the development of self-care capabilities and nursing care in regard to childbearing families. S/U graded.

NURS 354 Healthy Individuals and Families Practicum (6)

Corequisite: NURS 355. Majors only. Completion of Semester I courses. Provides clinical opportunities for health promotion, disease prevention and therapeutic interventions for healthy individuals across the lifespan and their families within their communities. S/U graded.

NURS 355 Healthy Individuals and Families Across the Lifespan (4)

Corequisite: NURS 354. Majors only. Completion of Semester I courses. Explores the role of nursing in health promotion, disease prevention, and therapeutic interventions for healthy individuals across the lifespan and families within their communities.

NURS 360 Practicum in Care of Children (4)

(8 laboratory) Prerequisites: NURS 300, NURS 301, NURS 303. Corequisite: NURS 306. Application of knowledge of nursing care of children requiring medical-surgical interventions, laboratory and clinical experience will focus on self-care deficits and self-care capabilities of children and families. S/U graded.

NURS 390 Adult Nursing Practicum (6)

(12 laboratory) Prerequisites: NURS 300, NURS 301, NURS 303. Application of knowledge of nursing care of adults requiring medical-surgical interventions. Laboratory and clinical experience will focus on self-care deficits due to illness or injury. S/U graded.

NURS 402 Community Nursing Theory (3)

Clinical Level IV status required. Study of nursing within the context of cultures, families, communities and society including principles of health maintenance, health promotion and disease prevention.

NURS 407 Mental Health Nursing (3)

Clinical Level IV status required. Psychosocial nursing theory emphasizing: interpersonal relationships, principles of communication, group processes, developmental theories, recognition of abnormal behavior and interventions that enhance mental health care capabilities of individuals, families and groups.

NURS 408 Nursing Workshop (1-3)

Offers undergraduate students an opportunity to increase nursing knowledge and skills. Repeatable, under different subtitles.

NURS 409 Applied Nursing Research (1-3)

Prerequisite: NURS 315. Qualified undergraduate students will conduct original research or implement the utilization of nursing research in clinical practice. Repeatable, maximum five credits.

NURS 410 Foundations of Professional Practice III (3)

Majors only. Completion of Semester II courses. This course emphasizes issues in professional nursing practice as they relate to the changing health care environment. Students will utilize principles of learning, research, team building and collaboration.

NURS 415 Professional Perspectives (3)

Majors only. Utilize analysis, synthesis and critical thinking skills to examine current issues and trends which challenge the professional nature of the nursing discipline.

NURS 420 Community Nursing Practicum (4)

(8 laboratory) Corequisite: NURS 402. Application of concepts of health maintenance, health promotion and disease prevention through a clinical experience in a community agency. S/U graded.

NURS 422 Directed Studies (1-3)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

NURS 424 Episodic Alterations in Adult/Child Health Practicum (6)

Corequisite: NURS 425. Majors only. This course focuses on the application of therapeutic intervention guided by application of the nursing process in the acute, episodic care of individuals and their families across the lifespan. S/U graded.

NURS 425 Episodic Alterations in Adult/Child Health (7)

Corequisite: NURS 424. Majors only. Completion of Semester II courses. Emphasis is on understanding of therapeutic interventions guided by the nursing process to maximize self-care capabilities in the episodic care of children, adults and their families.

NURS 430 Nursing Management (2)

Majors only. Explore administrative concerns that affect health care consumers. Examine management strategies necessary for quality care, utilization of human and financial resources, cost containment and other aspects of health care. Program Fee required.

NURS 435 Foundations of Professional Practice IV (3)

Majors only. Completion of Semester III courses. The emphasis of this course is on the nurse as leader/manager in society with respect to current issues and trends.

NURS 440 Complex Nursing (2)

Majors only. Synthesizes knowledge and practice concepts, including leadership and management through clinical experiences. S/U graded.

NURS 444 Community/Population Based Health Practicum (6)

Corequisite: NURS 445. Majors only. This course focuses on the therapeutic intervention guided by the nursing process applied to community health nursing and case management of complex health problems in community settings. S/U graded.

NURS 445 Community/Population Based Health (6)

Corequisite: NURS 444. Majors only. Completion of Semester III courses. A theoretical perspective to illness management and restoration of health applied to individuals, families and communities.

NURS 450 Professional Nursing Roles (5)

Prerequisite: NURS 440. Clinical Level IV status required. A combination of seminar and supervised practicum experience that provides a socialization into the role set of the professional nurse. S/U graded.

NURS 453 Community/Population Base Health for RNs (4)

Majors only. Admission into Clinical Nursing Program. A theoretical perspective to illness management and restoration of health applied to individuals, families and communities.

NURS 454 Community/Population Based Health Practicum for RNs (4)

Majors only. Admission into clinical program. This course focuses on the therapeutic intervention guided by the nursing process applied to community health nursing and case management of complex health problems in community settings. S/U graded.

NURS 455 Hemodynamic Monitoring (2)

Clinical nursing major or RN status. An overview of hemodynamic monitoring with emphasis on nursing management of the patient being monitored. S/U or letter graded.

NURS 464 Professional Roles for RNs (5)

Majors only. Admission into clinical program. A combination of seminar and preceptored practicum that provides socialization into the role set of the professional nurse with an emphasis on leadership and management. S/U graded.

NURS 465 Professional Roles with Individuals, Families and Communities (10)

Majors only. Completion of Semester IV courses. A combination of seminar and preceptored practicum that provides socialization into the role set of the professional nurse with an emphasis on leadership and management. S/U graded.

NURS 470 Mental Health Practicum (4) (8 laboratory) Corequisite: NURS 407. Living laboratory course providing experiences in clinical application of psychosocial nursing process. Opportunity to apply theoretical knowledge of therapeutic communication and interpersonal relationship skills with patients and families. S/U graded.

NURS 471 Care of the Terminally Ill (1) Admission to Clinical Level III required. Discuss historical and contemporary attitudes toward death and dying. Examines clinical management techniques used in symptom control. Explore emotional and spiritual concerns. Analyze professional, organizational and societal factors. S/U graded.

NURS 505 Nursing Research (3) Prerequisite: NURS 315 or equivalent. Introduction of advanced research and methodology. Critique of selected nursing research projects to determine cost effective outcome, relevance to nursing practice, contribution to theory development.

NURS 507 Leadership and Nursing Issues (3) Involves comprehensive investigation and analysis of health care issues and leadership theory and skills which are imperative in today's health care environment.

NURS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

NURS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

NURS 595 Special Topics (1-3) Graduate students only. Intensive study of advanced nursing topics beyond the scope of existing departmental course offerings. Two copies of scholarly paper must be filed before credit is given. Repeatable, under different subtitles.

NURS 600 Nursing Theory (3) Admission to Master's Program required. Introduction to theoretical foundations for advanced nursing practice. Application of theory to clinical nursing practice and to nursing education. Emphasis on the development, application and critique of nursing models.

NURS 602 Concepts in Chronic Illness (4) Admission to Master's Program required. Required laboratory arranged. Impact of chronic illness on all age groups is examined using a developmental approach. Health maintenance and wellness promotion are explored.

NURS 604 Care of Chronically Ill Adult and Child (4) Prerequisites: See prerequisites to program; NURS 600, NURS 602; NURS 505 or take concurrently. Required laboratory arranged. Nursing assessment, planning, implementation and evaluation of health promotion and illness management strategies for the chronically ill adult and child. Exploration of the illness experience from the individual/family perspective.

NURS 610 Health Assessment (3) Majors only. Required laboratory arranged. Emphasis in health history taking, physical assessment and interviewing of individuals across the life span. Spends 45 hours with an MD or NP in clinical application.

NURS 612 Advanced Pharmacology (3) Examine clinical pharmacokinetics and pharmacotherapeutics. Focus on selected drug groups and their safe and appropriate utilization in primary care practice.

NURS 614 Advanced Pathophysiology (3) Focus on pathophysiology, symptomology and etiology of commonly encountered acute and chronic clinical entities of children and adults.

NURS 622 Directed Studies (1-3) Graduate students only. Individualized investigation under the supervision of a faculty member. Two copies of scholarly paper must be filed before credit is given. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

NURS 630 Teaching Strategies in Nursing (3) Prerequisites: EPSY 540, EPSY 674. Practice teaching of nursing students, practicing nurses and/or clients. Analyze teaching strategies in academic and clinical settings.

NURS 640 Health Care of Families I (4) Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 610, NURS 612 and NURS 614. Application of theoretical and research based developmental approaches to primary health care of families with particular emphasis on childhood/adolescence.

NURS 645 Health Care of Families II (4) Majors only. Required laboratory arranged. Prerequisites: NURS 600, NURS 612 and NURS 614. Corequisite: 640. Application of theoretical and research based developmental approaches to primary care of families with particular emphasis on women's health and adult episodic care.

NURS 650 Health Care of Families III (4) Prerequisites or Corequisites: NURS 505, NURS 507 and NURS 640 Majors only. Required laboratory arranged. Application of theoretical and research based developmental approaches to primary care of families with particular emphasis on chronically ill and older adults and psychosocial adjustment disorders.

NURS 660 Nursing Education Seminar (6) Prerequisites: EPSY 540 or equivalent. Synthesis of concepts from nursing theory, research and education courses. Experience with curriculum development and analysis.

NURS 680 Family Nurse Practitioner Role Practicum (9) Prerequisite: NURS 650. Corequisite: NURS 690. Graduates and majors only. Final clinical experience (24-32 hrs/week) provides students opportunity to practice primary care intervention with families in underserved and/or rural areas.

NURS 690 Advanced Clinical Role (2-3) Prerequisites: NURS 602, NURS 604, NURS 650. Majors only. Advanced practice role development in health maintenance and illness management is examined from several perspectives.

NURS 691 Applied Nursing Research (2-4) Majors only. Application of concepts from graduate research in a completed scholarly project, under direction of a graduate faculty member. Repeatable, maximum four credits.

NURS 699 Thesis (1-6) Terminal program course. All other courses should be taken before or concurrently with this course. Guided research project that demonstrates evidence of original thought as well as advanced knowledge of the research process. S/U graded. Repeatable, no limitations.

OCN - Oceanography

OCN 110 Oceans and Humankind (3) Various aspects of people and technology concerning the oceans, including foods and minerals, coastal erosion, submersibles, diving, recent technological developments, pollution and international political implications.

OCN 200 General Oceanography (4) (3 lecture, 2 laboratory) For non-science majors only. Geological, physical, chemical and biological aspects of oceans and ocean basins. Field trip required. Fee required.

OCN 301 Physical and Chemical Oceanography (4) (3 lecture, 2 laboratory) Historical, physical and chemical aspects of oceanography including general character of water masses, ocean circulation and currents, waves, tides, ocean-atmosphere interactions and chemical oceanography. Fee required.

OCN 302 Geological and Biological Oceanography (4) (3 lecture, 2 laboratory) Geological and biological aspects of the ocean including origin of oceans and ocean floors, marine sediments and geomorphology, distribution and ecology of marine organisms and ocean productivity. Required field trip. Fee required.

OCN 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

OCN 500 Survey of Oceanography (3) Principles of oceanography from a non-mathematical approach. Physical features of water, currents, geological features of sea floors, life, food and mineral resources, recent technological developments and international political implications.

OCN 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PE - Physical Education

Courses numbered 100 to 195 have unlimited repeatability.

PE 100 Basketball (1) Gain knowledge and skill in the game of basketball.

PE 101 Flag Football (1) Gain knowledge and skill in the game of flag football.

PE 102 Soccer (1) Gain knowledge and skill in the game of soccer.

PE 103 Softball (1) Gain knowledge and skill in the game of softball.

PE 104 Volleyball (1) Gain knowledge and skill in the game of volleyball.

PE 110 Badminton (1) Gain knowledge and skill in the game of badminton.

PE 111 Bowling (1) Gain knowledge and skill in the game of bowling. Fee required.

PE 113 Fly Fishing/Trap Shooting (1) Gain knowledge and skill in the activities of fly fishing and trap shooting.

PE 114 Golf (1) Gain knowledge and skill in the game of golf. Fee required.

PE 115 Ice Skating (1) Gain knowledge and skill in the activity of ice skating.

PE 116 Water Safety Instructor (2) A current Basic and Emergency Water Safety or Lifeguard Training certificate is required. Purpose of this instructor course is to train instructor candidates to teach the American Red Cross Water Safety courses. Fee required.

PE 117 Racquetball (1) Gain knowledge and skill in the game of racquetball. Fee required.

PE 118 Swimming (1) Gain knowledge and skill in the activity of swimming.

PE 119 Tennis (1) Gain knowledge and skill in the game of tennis. Fee required.

PE 120 Lifeguard Training (1) Designed by the American Red Cross to focus attention on the skills and knowledge required for an individual to properly assume the responsibilities of a lifeguard at a swimming pool or a protected (non-surf) open water beach. Fee required.

PE 121 Basic and Emergency Water Safety (1) Purpose of this course is to teach personal and community water safety. Students successfully completing this course will receive American Red Cross Certification.

PE 125 Backpacking and Hiking (1) Gain knowledge and skill in the activities of backpacking and hiking.

PE 126 Canoeing (1) Gain knowledge and skill in the activity of canoeing. Fee required.

PE 127 Cross-Country Skiing (1) Gain knowledge and skill in the activity of cross-country skiing. Fee required.

PE 128 Cycling (1) Gain knowledge and skill in the activity of cycling.

PE 129 Downhill Skiing (1) Gain knowledge and skill in the activity of downhill skiing. Fee required.

PE 130 Kayaking (1) Gain knowledge and skill in the activity of kayaking. Fee required.

PE 131 Orienteering and Wilderness Survival Skills (1) Gain knowledge and skill in the activities of orienteering and wilderness survival. Fee required.

PE 132 Adventure Activities (1) Students will participate in high and low level rope adventure activities. Fee required.

PE 133 Scuba Diving (1) Gain knowledge and skill in the activity of scuba diving. Fee required.

PE 134 Self Defense (1) Gain knowledge and skill in the activity of self defense.

PE 135 Technical Climbing (1) Gain knowledge and skill in the activity of technical climbing. Fee required.

PE 136 Intermediate Adventures Activities (1) Prerequisite: PE 132. Designed to provide students with increased challenges on the UNC adventure course. The course will culminate in a field trip in the mountains. Fee required.

PE 145 Activity for Stress Management (1) Use of a variety of physical activities to control stress.

PE 146 Aerobics (1) Improve personal skills and fitness through aerobic activities. Fee required.

PE 147 Aquacize (1) Improve personal skills and fitness through aquacize activities.

PE 148 Exercise and Weight Control (1) Improve personal skills and fitness through exercise and weight control activities.

PE 149 Fitness and Conditioning (1) Improve personal skills and fitness through fitness and conditioning activities.

PE 150 Jogging and Walking (1) Improve personal skills and fitness through jogging and walking.

PE 152 Swimming Conditioning (1) Improve personal skills and fitness through swimming activities.

PE 153 Weight Training (1) Improve personal skills and fitness through weight training activities.

PE 165 American Square and Folk Dance (1) Gain knowledge and skill in the activity of square and folk dance.

PE 169 Gymnastics (1) Gain knowledge and skill in the activity of gymnastics

PE 174 Social Dance (1) Gain knowledge and skill in social dance. Includes traditional dance steps: polka, foxtrot, waltz, two-step; Latin American Rhythms: Cha Cha, Rhumba, Tango; country swing and swing, social etiquette and mixers.

PE 185 Varsity Baseball (1) Consent of instructor. Participate in the sport of varsity baseball.

PE 186 Varsity Basketball (1) Consent of instructor. Participate in the sport of varsity basketball.

PE 187 Varsity Football (1) Consent of instructor. Participate in the sport of varsity football.

PE 190 Varsity Swimming (1) Consent of instructor. Participate in the sport of varsity swimming.

PE 191 Varsity Tennis (1) Consent of instructor. Participate in the sport of varsity tennis.

PE 192 Varsity Track and Field (1) Consent of instructor. Participate in the sport of varsity track.

PE 193 Varsity Volleyball (1) Consent of instructor. Participate in the sport of varsity volleyball.

PE 194 Varsity Wrestling (1) Consent of instructor. Participate in the sport of varsity wrestling.

PE 195 Varsity Women's Soccer (1) Participate in Varsity Women's Soccer.

PE 207 Analysis and Teaching of Individual Sports (2) Develop knowledge, skills, analysis techniques and teaching competencies in the sports of golf, archery and bowling. Fee required.

PE 208 Analysis and Teaching of Tumbling and Gymnastics (2) Develop knowledge, skills, safety procedures, teaching progressions and analysis techniques in the sport of tumbling and gymnastics.

PE 209 Analysis and Teaching of Dance (2) Develop knowledge, skills, analysis techniques and teaching competencies in various types of dance.

PE 210 Movement Fundamentals and Motor Development (3) Majors/minors only. Movement integrated approach to the study of maturational, growth and experiential components of motor development. Focus on performance and analysis of fundamental and sport related movement skills in teaching school-aged populations.

PE 211 Weight Training and Anatomy (3) Majors/minors only. An integrated study of structural anatomy and weight training as the two areas relate to enhancing performance in human movement.

PE 212 Fitness and Conditioning and Physiology (3) Majors/minors only. Learn and apply physiological principles to human movement through specific health-related activities.

PE 213 Sports and Mechanics (3) Majors/minors only. Study and apply biomechanical analysis of human movements through the specific sports of track and field, swimming and golf.

PE 214 History and Philosophy (2) Review different perspectives of physical education, sport and fitness. Historical and philosophical implications for today's physical education programs will be identified and discussed.

PE 215 Analysis and Teaching of Basketball (2) Teach movement skills, rules and game strategies of basketball to professional preparation degree candidates completing a major or minor in physical education.

PE 216 Analysis and Teaching of Football (2) To teach movement skills, techniques, rules and game strategies of football. Develop knowledge, skills and analysis techniques in the sport of football.

PE 217 Analysis and Teaching of Soccer (2) The objective is to provide students with an understanding of teaching and analyzing the correct techniques, skills and basic knowledge to teach/coach the game of soccer.

PE 218 Analysis and Teaching of Softball (2) Develop knowledge, physical skills, teaching competence and analysis techniques in the sport of softball.

PE 219 Analysis and Teaching of Volleyball (2) Teach movement skills, rules and game strategies of volleyball to professional preparation degree candidates completing a major or minor in physical education.

PE 220 Analysis and Teaching of Baseball (2) Develop knowledge, physical skills, teaching competence and analysis techniques in the sport of baseball.

PE 226 Analysis and Teaching of Racquet Sports (2) Develop knowledge, skills, teaching and analysis techniques in the sports of tennis and badminton; and an overview of racquet sport techniques. Fee required.

PE 227 Analysis and Teaching of Track and Field (2) Develop knowledge, skills, teaching and analysis techniques in the sport of track and field.

PE 228 Analysis and Teaching of Wrestling (2) Develop knowledge, skills, analysis and teaching techniques in the sport of wrestling.

PE 229 Adventure Activities and Motor Learning (3) Majors/minors only. Presents content, method, safety and management of adventure ropes courses activities, as well as critical topics in the study of motor learning. Fee required.

PE 230 Analysis and Teaching of Self Defense (2) Develop knowledge, skills, teaching and analysis abilities in the study of self defense techniques for men, women and children.

PE 232 Pedagogy of Outdoor Physical Education (3) Consent of instructor. Designed to explore the history, principles, philosophy and pedagogy of outdoor physical education. Topics will include environmental understanding outdoor hazards and emergency procedures, planning and conducting outdoor physical education activities, and equipment, clothing, training, and nourishment.

- PE 233 Advanced First Aid and Cardiopulmonary Resuscitation (2)** Provide advanced and additional topics relative to first aid, i.e., increase proficiency skills, update CPR knowledge, increase knowledge in preventive and causative factors of injury and illness. Fee required.
- PE 234 Approaches and Methods of Bike Touring and Cycling (2)** Prerequisite: PE 232 or equivalent. Develop students' knowledge and skills in teaching bicycle touring, cycling and mountain biking. Focus on approaches and methodology of teaching and leading bike touring. Bike racing will also be introduced.
- PE 235 Approaches and Methods of Cross-Country and Adventure Skiing (2)** Prerequisite: PE 232 or equivalent. Develop students' skills in winter skiing activities. Focus on developing competent track and cross-country skiers and wilderness back-country skiers. Cross-country, telemarking, nordic and back-country skiing included.
- PE 236 Approaches and Methods of Technical Rock Climbing and Basic Mountaineering (2)** Prerequisite: PE 232 or equivalent. Develop knowledge and techniques for teaching basic mountaineering with an emphasis on technical rock climbing, particularly top-rope climbing experiences.
- PE 237 Approaches and Methods of Whitewater and Wilderness Canoeing (2)** Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe lake and river travel. Students learn about paddle techniques for lakes and rivers, minimum impact camping and wilderness canoeing.
- PE 238 Approaches and Methods of Winter Wilderness Living Skills and Travel-Wilderness Ski Expedition (2)** Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe winter travel experiences. Students learn about winter environments, snow mechanics, avalanche prediction, winter camping and back country ski expeditions.
- PE 239 Approaches and Methods of Outdoor Adventure and Wilderness Living Skills and Travel - Backpacking (2)** Prerequisite: PE 232 or equivalent. Focuses on approaches and methodology of teaching and leading safe backpacking and wilderness travel experiences. Students learn backpacking skills, wilderness camping, navigation skills and minimum impact camping techniques.
- PE 266 Seminar in Management and Instruction in Physical Education (1)** Corequisite: EDFE 270. Focus on current issues and concerns of students during their early physical education field experience in the public schools.
- PE 288 Physical Education Activities for the Elementary School (1)** Elementary majors/minors only. Full PTEP admittance required. Study of effective teaching, learning theories, basic movement principles and activities included in a quality, well-rounded program of physical education in the elementary school.
- PE 312 Coaching and Officiating of Baseball (2)** Study techniques and strategies of coaching competitive baseball and obtain background and understanding of rules and techniques of baseball officiating.
- PE 313 Coaching and Officiating of Basketball (2)** Study techniques and strategies of coaching competitive basketball and obtain background and understanding of rules and techniques of basketball officiating.
- PE 314 Coaching and Officiating of Football (2)** Study techniques and strategies of coaching football and obtain background and understanding of rules and techniques of football officiating.
- PE 315 Coaching and Officiating of Gymnastics (2)** Study techniques and strategies of coaching competitive gymnastics and obtain background and understanding of rules and techniques of gymnastics officiating.
- PE 316 Coaching and Officiating Tennis (2)** Study techniques and strategies of coaching competitive tennis and obtain background and understanding of rules and techniques of tennis officiating.
- PE 317 Coaching and Officiating of Track and Field (2)** Study techniques and strategies of coaching competitive track and field and obtain background and understanding of rules and techniques of track and field officiating.
- PE 318 Coaching and Officiating of Soccer (2)** Study techniques and strategies of coaching competitive soccer and obtain background and understanding of rules and techniques of officiating.
- PE 319 Coaching and Officiating of Softball (2)** Study techniques and strategies of coaching competitive softball and obtain background and understanding of rules and techniques of softball officiating.
- PE 320 Coaching and Officiating of Swimming (2)** Current WSI. Study techniques and strategies of coaching competitive swimming and obtain background and understanding of rules and techniques of swimming officiating.
- PE 321 Coaching and Officiating of Volleyball (2)** Study techniques and strategies of coaching competitive volleyball and obtain background and understanding of rules and techniques of volleyball officiating.
- PE 322 Coaching and Officiating of Wrestling (2)** Study techniques and strategies of coaching competitive wrestling and obtain background and understanding of rules and techniques of wrestling officiating.
- PE 334 Teaching Fitness Activities (2)** Prerequisites: KINE 220, KINE 222 or Equivalent. Study methods and techniques of teaching all types of fitness activities. Class management/organization, giving cues and feedback, and motivational techniques will be included, as well as instructional strategies.
- PE 335 Sports Pedagogy (2)** Designed to analyze and study teaching and coaching behaviors that are necessary for students interested in the coaching profession.
- PE 344 Clinical Experience in Teaching Physical Education (3)** Corequisites: PE 345, PE 346 and PE 347. Full admission to PTEP required. Teach under close supervision with immediate feedback and discussion with supervising teacher. Learn video taping and objective analysis.
- PE 345 Methods of Teaching Elementary Physical Education (2)** Corequisites: PE 344, PE 346 and PE 347. Full admission to PTEP required. Study of effective teaching in elementary physical education with an emphasis on analysis of teaching, maximizing student learning time, classroom management skills and lesson, unit and program planning.
- PE 346 Methods of Teaching Secondary Physical Education (2)** Corequisites: PE 344, PE 345 and PE 347. Full admission to PTEP required. Study of effective teaching in secondary physical education with an emphasis on analysis of teaching, maximizing student learning time, classroom management skills and lesson, unit and program planning.
- PE 347 Tests and Measurements in Physical Education (2)** Corequisites: PE 344, PE 345 and PE 346. Full admission to PTEP required. Receive a foundation in techniques of evaluation, including elementary statistical procedures, preparation and administration of skill and written tests and use of other evaluative materials in the field including computers.
- PE 392 Internship in Physical Education (1-6)** Consent of instructor. Put into practice the knowledge and skills learned in the classroom. Assume responsibilities in administration supervision and evaluation in physical education and athletic settings. S/U graded. Repeatable, one time.
- PE 408 Workshop in Physical Education (1-3)** Study in the problem areas of participants. Problems will vary with experts conducting workshops. S/U or letter graded. Repeatable, under different subtitles.
- PE 422 Directed Studies (1-3)** Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.
- PE 432 Adapted Physical Education (2)** Prerequisites: PE 211, EDSE 410. Acquire skills and knowledge for serving individuals with special needs in physical education settings. Topics include designing appropriate activities and employing instructional alternatives. Practical experience laboratory.
- PE 436 Social-Cultural Foundations in Physical Education (2)** Examine basic sociological concepts and issues, group dynamics theories and attitudes and value information as they apply to sports and physical education.
- PE 461 Administration and Law (2)** Juniors or above. This course is designed to examine administrative practices and legal concerns experienced in education and physical education. Emphasis is on practical application of administrative and legal concepts.
- PE 464 Legal Issues in Human Performance and Leisure Studies (3)** Course involves the study of legal issues related to the professions of physical education, athletics, fitness and leisure. Emphasis will be on understanding legal responsibilities and applying safety procedures and risk management measures.
- PE 466 Seminar in Student Teaching for Physical Educators (3)** Must be taken concurrently with student teaching. Develop peer support system, discuss problems in difference between theory and practice. Improve competencies in reaching optimal levels of instruction and management time.
- PE 508 Workshop (1-3)** A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.
- PE 513 Professional Renewal (1-3)** Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

PE 550 Program Management (3) Develop an understanding of theories and principles involved in managing a program in human performance and leisure studies.

PE 560 Issues and Ethics in Sport Management (3) An exploration of major issues, ethical theories, moral reasoning and their impact on the operation of programs in sport, physical education, fitness, athletics and recreation.

PE 576 Sport Promotion and Marketing (3) Develop understanding of and skill in the marketing process as it relates to promotion and public relations activities in physical education, athletics and commercial sport operations. Primary focus will be on the application of marketing principles to specific sport scenarios.

PE 602 Introduction to Research in Kinesiology and Physical Education (3) Receive an introduction and some application of strategy and methods of research to problem solving in physical education, recreation and kinesiology.

PE 612 Measurement of Human Performance (3) Receive sound background in tools, techniques and methods of evaluation. Emphasize construction of both written and activity tests and use of other evaluative tools.

PE 614 Analysis of Teaching in Physical Education (3) Present and analyze systems used in evaluating student behavior, teacher behavior and student-teacher interaction. Study strategies for planning and implementing effective teaching and supervising in physical education.

PE 615 Qualitative Research in Physical Education, Recreation and Kinesiology (3) The epistemological and practical underpinnings of qualitative research as an alternative or complement to quantitative research will be studied in this course through readings, class discussions and a practical project.

PE 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PE 630 Adventure Ropes Course Programming (3) Study the history, philosophy and principles of adventure ropes courses. Construction, maintenance and risk management will be stressed for public school educators.

PE 631 Outdoor Physical Education and Adventure Education (3) Study the history, philosophy and principles of outdoor physical education. Focus will be on the interdisciplinary nature and educational growth through outdoor experiences.

PE 635 Seminar in Sport Administration (2) Student will undertake an in-depth study of current topics related to the administration and management of sport, physical education, fitness and athletic programs.

PE 640 Curriculum in Physical Education (3) Consider the principles underlying curriculum instruction, various curriculum elements and build a curriculum in physical education.

PE 641 Instructional Strategies for Elementary School Physical Education (3) Study of research and advanced techniques in teaching elementary physical education. Emphasis on teacher instruction and management, student skill learning time and current program planning.

PE 642 Instructional Strategies for Secondary School Physical Education (3) Study of research and advanced techniques in teaching secondary physical education. Emphasis on understanding the role of the secondary teacher and secondary student needs in teaching physical education.

PE 650 Financial Management for Sport Organizations (3) Develop an understanding of and skill in financial resource management for the operation of programs in sport, physical education, fitness, athletics and recreation.

PE 660 Sport Personnel Management (3) Develop understanding of and skill in human resource management for the operation of programs in sport, physical education, fitness and athletics.

PE 675 Management of Sports Facilities and Equipment (3) An examination of the functions of planning, management, evaluation, maintenance operations and situational analysis as they relate to management of sport facilities and equipment.

PE 676 Sport Public Relations and Information Systems (3) Presentation of principles, standards and guidelines in sport public relations and information systems involved in sport information management.

PE 678 Event Development and Management (3) Provide student with the skills necessary to develop, propose and conduct sport-related contests and special events including game management and facility management.

PE 680 Perspectives in Physical Education and Sport (3) Philosophical perspectives of issues in physical education and sport, which are influenced by contemporary trends in American education.

PE 685 Critical Pedagogy (3) Students will examine critical pedagogical philosophies and strategies while analyzing socialization process in schools. Also, students will learn how to develop critical awareness and take transformative action in schools.

PE 688 Legal Aspects (3) Study the law and implications relative to physical education and sport. Emphasis on legal theory and responsibilities and risk management.

PE 692 Graduate Internship in Physical Education (1-6) Consent of instructor. Put into practice the knowledge and skills learned in the classroom. Assume responsibilities in administration supervision and evaluation in physical education and athletic settings. S/U graded. Repeatable, maximum six credits.

PE 695 Seminar in Physical Education (2) Consent of instructor. Students will make an in-depth study of contemporary topics under guidance of qualified graduate faculty and consultants. Repeatable up to one time.

PE 696 College Teaching in Kinesiology and Physical Education (3) Consent of instructor. Examines instructional models, issues and practices specific to teaching at the college level. Presentation modes such as lecture, discussion, questioning and small group procedures will be included.

PE 699 Thesis (1-6) Optional for Master of Arts students on recommendation of major advisor. S/U graded. Repeatable, no limitations.

PE 703 Research Seminar in Physical Education (3) For doctoral candidates planning to conduct research in Physical Education or allied areas. Learn techniques and procedures of research and receive aids in development of required research outline for degree.

PE 797 Doctoral Proposal Research (1-4) Doctoral students must earn a minimum-maximum of 4 hours credit in partial fulfillment of degree requirements. S/U graded. Repeatable, maximum four credits.

PE 799 Doctoral Dissertation (1-12) Doctoral students must earn a minimum-maximum of 12 hours of credit for the dissertation. S/U graded. Repeatable, no limitations.

PHIL - Philosophy

PHIL 100 Introduction to Philosophy (3) An examination of issues pertaining to knowledge, reality and morality. Issues examined might include the following: Can we know anything? Does God exist? Is morality merely personal opinion?

PHIL 101 Critical Thinking and Writing (3) Prerequisite: ENG 122. Introduction to methods of critical thinking as required for critical and evaluative writing.

PHIL 105 Philosophical Perspectives on Current Issues (3) Offerings under this heading will examine the philosophical dimensions of specific issues of lively current interest.

PHIL 110 Figures in Western Philosophy (3) Figures studied will include three to five of the following: Plato, Aristotle, Aquinas, Descartes, Hobbes, Leibniz, Berkeley, Hume, Kant, James, Sartre.

PHIL 115 Philosophy and Current Affairs (1-3) Offerings under this heading will explore philosophical issues connected with matters of widespread current controversy or general public debate. Repeatable, under different subtitles.

PHIL 220 The Nature of Legal Reasoning (3) No background in philosophy is required. A study of the reasoning involved in the law. Students will read cases, write legal briefs and argue their cases orally.

PHIL 240 Formal Logic I (3) A first course in logic which provides an intensive introduction to the basic principles and methods of formal logic.

PHIL 241 Formal Logic II (3) Prerequisite: PHIL 240. A second course in logic which rounds out the development of the formalized language introduced in the first semester by providing a system of inference rules for first order logic and then establishing a number of metatheorems.

PHIL 260 History of Ancient Philosophy (3) A study of the major figures in the history of Western philosophy from the pre-Socratics to Plotinus.

PHIL 261 History of Modern Philosophy (3) A study of the major figures in Western philosophy from Descartes through Kant.

PHIL 300 Topics in Philosophy (3) Offerings under this heading will focus on areas of philosophical interest not regularly covered at the 300 level (e.g., Philosophy of Mind). Repeatable, under different subtitles.

PHIL 305 Ethics in Theory and Practice (3) Acquaint students with the history of ethical theories and enable students to apply the theories to contemporary ethical problems.

PHIL 350 Ethics (3) In-depth examination of selected topics in ethics (e.g., ethical relativism and subjectivism, the possibility of moral knowledge, the structure of moral reasoning, freedom and responsibility).

PHIL 352 Business Ethics (3) In-depth examination of selected topics in business ethics (e.g., reverse discrimination in hiring, the social responsibilities of business, conflict of employee obligations, ethical issues in advertising.)

PHIL 355 Social and Political Philosophy (3) In-depth examination of selected topics in social and political philosophy (e.g., the concept of political obligation, freedom and dissent, equality and justice, human rights).

PHIL 370 Philosophy of Religion (3) In-depth examination of selected topics in philosophy of religion (e.g., the nature and justification of religious belief, freedom and sin, arguments for and against God's existence).

PHIL 385 Epistemology (3) In-depth examination of selected topics in theory of knowledge (e.g., the nature and limits of human knowledge, knowledge and belief, doubt and certainty, perception and intuition, faith and justification).

PHIL 390 Metaphysics (3) In-depth examination of selected topics in metaphysics (e.g., the nature of space and time, particulars and universals, the different senses of 'being,' substance, causality, identity and difference).

PHIL 422 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PHIL 495 Advanced Seminar (3) Detailed investigation of a specific philosophical issue. Substantial independent research and at least one oral presentation required. Unlimited repeatability.

PHIL 497 Student Internship (1-3) Consent of Instructor. Practical training in one or more areas of the profession. Only six credits counted for major and 3 for minor. S/U graded. Unlimited repeatability.

PHIL 622 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PHYS - Physics

PHYS 220 Introductory Physics I (5) (4 lecture, 3 laboratory) Prerequisite: MATH 124 or high school algebra. First semester of algebra-based physics. Areas covered are classical mechanics and heat. Fee required.

PHYS 221 Introductory Physics II (5) (4 lecture, 3 laboratory) Prerequisite: PHYS 220. Second semester of algebra-based physics. Areas covered are waves, sound, light, electricity, magnetism and modern physics. Fee required.

PHYS 240 General Physics I (5) (4 lecture, 3 laboratory) Prerequisite: MATH 131 or take concurrently. First semester of calculus-based introductory physics. Kinematics, Newton's laws, momentum, work, energy, gravity, oscillatory systems, heat and thermodynamics. Fee required.

PHYS 241 General Physics II (5) (4 lecture, 3 laboratory) Prerequisites: PHYS 240, MATH 132 or take concurrently. Second semester of calculus-based introductory physics. Electricity, magnetism, electromagnetic radiation, wave motion, sound, light, geometric and physical optics. Fee required.

PHYS 301 Seminar in Physics (1) Focus on current topics in physics not covered in existing departmental offerings. Oral report required. S/U graded. Repeatable, with maximum of two credits.

PHYS 310 Machining Skills (2) (4 laboratory) Scheduled individually on consent of Physics Department. Methods of using machine tools, specifications, reading and using engineering drawings, shop safety.

PHYS 320 Mathematical Applications (3) Prerequisites: MATH 132, PHYS 241 or take concurrently. Survey of mathematical applications in advanced physical sciences, including vector calculus, integration techniques, complex variables, Laplace and Fourier transforms and matrix algebra.

PHYS 321 Elementary Modern Physics (3) Prerequisites: PHYS 221, PHYS 241 or take concurrently. Important topics in physics of 20th century, including relativity, atomic, nuclear, quantum concepts, uncertainty, lasers. Fee required.

PHYS 340 Mechanics I (3) Prerequisite: PHYS 241. First of a sequence of two courses. Newton's Laws, particle and rigid body statics, work and energy, particle motion in a constant field and one-dimensional oscillatory motion.

PHYS 341 Electricity and Magnetism I (3) Prerequisite: PHYS 241. First of a sequence of two courses. Intermediate study of electric fields, electric potential, magnetic fields and induced electromotive force.

PHYS 343 Digital and Analog Electronics (4) (3 lecture, 3 laboratory) Prerequisites: PHYS 241 and MATH 132. DC and AC circuits. Theory and use of electronic devices and circuits including analog and digital electronics, D/A and A/D conversion and computer interfacing. Structure of solid state devices. Fee required.

PHYS 345 Atomic and Quantum Physics (5) (4 lecture, 3 laboratory) Prerequisites: PHYS 241, PHYS 321. Relativity, quantum mechanics of the atom, the Schrodinger equation in one and three dimensions, justification of the periodic chart, uncertainty, the nature of quantum theory. Fee required.

PHYS 347 Optics (4) (3 lecture, 3 laboratory) Prerequisites: PHYS 241, MATH 132. Geometric and physical optics, instrumentation, wave theory, light sources and lasers. Fee required.

PHYS 420 Thermodynamics and Statistical Physics (3) Prerequisites: PHYS 241, MATH 233 (prerequisite or concurrent). Introduction to kinetic theory and statistical mechanics, thermodynamic systems, equations of state and laws of thermodynamics.

PHYS 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PHYS 440 Mechanics II (2) Prerequisites: PHYS 340, MATH 233. Second course in two course sequence. Motion of systems of particles, rigid body motion in a plane and in three dimensions, central field motion and accelerated reference systems.

PHYS 441 Electricity and Magnetism II (2) Prerequisites: PHYS 341, MATH 233. Second in a two course sequence. Theory of dielectrics, magnetic properties of matter, electromagnetic theory.

PHYS 443 Electronic Systems and Controls (4) (3 lecture, 3 laboratory) Prerequisites: PHYS 343 and MATH 233. Analysis and design of electronic systems for collecting and processing signals, controls and automation. Further topics in D/A and A/D conversion, structure of solid state devices, computer interfacing and computer algorithms for use in signal processing and controls. Fee required.

PHYS 445 Nuclear and Condensed Matter Physics (5) (4 lecture, 3 laboratory) Prerequisites: PHYS 345, MATH 233. Nuclear reactions, decay schemes, nuclear models, detection and evaluation of radiation, fundamental particles, molecular binding, stimulated emission, electron statistics, properties of solids, junction theory, superconductivity. Fee required.

PHYS 447 Electro-optics (4) (3 lecture, 3 laboratory) Prerequisite: PHYS 347. Lasers, holography and holographic interferometry, fiber optics (including fiber optic communications) and electro-optic devices. Fee required.

PHYS 449 Advanced Quantum Mechanics (3) Prerequisites: PHYS 340, PHYS 345. Advanced undergraduate quantum mechanics including mathematical support for atomic theory, scattering, spin-orbital interactions, perturbations theory and many-particle systems.

PHYS 470 Senior Research (1-3) Prerequisite: Two years of physics courses that apply to major. Independent experimental or theoretic research project in physics. Weekly conferences with research advisor. A well-written paper or oral presentation is required. Repeatable, maximum 12 credits. Fee required.

PHYS 475 Seminar in Teaching Physics (2) For prospective physics and physical science teachers at the secondary school level. Curricula and problems teachers may encounter in classrooms.

PHYS 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PPSY - Professional Psychology

PPSY 468 Psychology of Women (2) Theory and psychological issues influencing gender identity such as definitions of abnormality, achievement and interactional influences upon development.

PPSY 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

PPSY 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

PPSY 558 Abnormal Psychology (3) Graduate students only. Study of abnormal behavior, causes, symptoms, characteristics, classifications, prevention and treatment.

PPSY 559 Introduction to Clinical Hypnosis (2) Prerequisites: PPSY 612 or equivalent. Consent of instructor. Graduate students only. Introduction to techniques and applications of hypnosis in academic and mental health settings. Achievement of competence with basic hypnotic techniques and their appropriate utilization in psychotherapeutic processes.

PPSY 562 Teacher Effectiveness (2) Designed for teachers, counselors, administrators, psychologists and other school personnel to learn specific skills for developing and fostering effective relationships with students, parents, colleagues.

PPSY 565 Psychology of Prejudice (2) Graduate students only. Examination of the development of prejudicial attitudes through consideration of the counseling and social psychological literature. Discussion will focus on current changes in the United States with regard to demographic, socioeconomic and sociocultural trends.

PPSY 566 At Risk Students: Opportunities and Strategies (3) Gain knowledge and understanding of "high risk students" and expand the teachers' repertory of skills when educating at risk students. Prevalence, family characteristics and systems, and successful strategies will be studied.

PPSY 568 Psychology of Women (2) Graduate students only. Theory and psychological issues influencing gender identity such as definitions of abnormality, achievement and interactional influences upon development.

PPSY 569 Violence Against Women and Children (2) Seniors or above. Explores causes of interpersonal violence, societal conditions supporting such violence, intervention methodologies and treatment strategies for female and child victims of abuse and abusers.

PPSY 580 Computer Applications to Professional Psychology (2) Graduate students only. Overview of effective applications of computers in professional psychological environments. Learn how to select, use, modify relevant software, legal and ethical limitations and their implications.

PPSY 585 Family Counseling and Education in School Settings (2) Introduction to family systems and the incorporation of this knowledge into schools. A three-level program of counseling and education in schools will be presented.

PPSY 601 Practicum (1-3) Consent of instructor. Majors only. Open by invitation to graduate students. Supervised professional activity in student's major field; approximately 25 clock hours of work per credit. Two copies of a well-written paper must be filed before credit is given, one with instructor and one with division director. S/U graded. Repeatable, maximum three credits.

PPSY 602 Foundations of School Guidance (3) Study principles of school guidance, its application, functions of counselors, administrators, teachers and parents in meeting student needs. Focus on elementary, secondary and post-secondary school guidance.

PPSY 603 Counseling Children and Adolescents (3) Provides a comprehensive study of a variety of therapeutic counseling approaches and techniques used effectively with children and adolescents. Focuses on how significant others in the lives of children and adolescents may be involved in therapeutic counseling within the home, school and community.

PPSY 604 Career Development and Occupational Systems (2) Analyze career development theories, society/changing values, career development, world of work classification, labor force/employment trends and educational-vocational planning principles.

PPSY 605 Group Laboratory Experience (1) Corequisite: PPSY 606 or PPSY 662. Consent of practicum coordinator. Provides an opportunity to participate in a group experience facilitated by an advanced doctoral student or faculty member. S/U graded.

PPSY 606 Theories and Practices in Group Guidance (2) Corequisite: PPSY 605. Study theory and methods of group counseling including applications in school settings for helping students with educational planning, career decisions and interpersonal relations.

PPSY 607 Theories of Counseling (3) Majors only. The study and critical analysis of the major counseling theories and elements of effective psychotherapy as they apply to the counseling process.

PPSY 608 Organization, Administration and Consultation in Guidance Services (3) Organization, administration and consultation in guidance services within institutions and agencies with emphasis being placed on the use of personnel services, effective utilization of leadership skills, consultation and management techniques.

PPSY 610 Theories of Personality (2) An overview of the psychological factors underlying personality and its development. Theories, critical periods, applications to counseling and education are addressed.

PPSY 611 Externship in Guidance Services (5) Consent of instructor. Minimum of 300 on site hours required. Majors only. A culminating field experience for counseling students engaged in guidance activities in a school setting under supervision. Permission must be obtained by the end of the seventh week of the preceding semester. S/U graded.

PPSY 612 Practicum in Individual Counseling (5) Prerequisites: PPSY 607 and consent of practicum coordinator. Requires 15 hours per week minimum. Majors only. Receive supervised experience in counseling and interview analysis, including use of audio and video tapes, client and supervisor feedback and weekly seminar. S/U graded. Repeatable, maximum 10 credits. Fee required.

PPSY 613 Externship in Counseling with Children (5) Consent of instructor. Minimum of 300 on site hours required. Majors only. A culminating field experience for counseling students engaged in counseling elementary school children under supervision. Permission must be obtained by the end of the seventh week of the preceding semester. S/U graded.

PPSY 614 Externship in Counseling with Youth and/or Adults (5) Consent of instructor. Majors only. Minimum of 300 on site hours required. A culminating field experience for counseling students engaged in counseling activities with junior/senior high or college students in a school setting under supervision. Permission must be obtained by the end of the seventh week of the preceding semester. S/U graded.

PPSY 616 Career Theory, Counseling and Assessment (3) Study theory and methods of career counseling, introduce and become familiar with career assessment instruments, and discuss current issues in the field of career counseling. Fee required.

PPSY 617 Play Therapy: Theory and Practicum (3) Prerequisites: PPSY 612 and consent of instructor. Study theoretical bases for play therapy and conduct play therapy under faculty supervision. Fee required.

PPSY 622 Directed Studies (1-3) Minimum of 25 clock hours required per credit hour. Individualized investigation under the direct supervision of a faculty member. Repeatable, maximum concurrent enrollment is two times.

PPSY 623 Counseling Diverse Populations (2) Majors only. An examination of various counseling skills and strategies which may be helpful in counseling individuals from diverse cultural backgrounds. Sensitizes students to the concerns of various ethnic and nonethnic minority groups.

PPSY 624 Assessment and Treatment of Substance Abuse (3) Majors only. Examination of the major treatment approaches to substance abuse and their accompanying theories of etiology. Investigation of the pharmacological and medical aspects of commonly used substances. Explore meaning of addiction and abuse in relation to related compulsive behaviors.

PPSY 627 Counseling Interventions and Techniques for Talented and Gifted Students (2) Study counseling interventions and techniques appropriate for talented and gifted students, their parents, siblings, peers, teachers and other school personnel.

PPSY 634 Death and Dying (2) Study views of death and dying from early childhood through older adults, emphasizing research dealing with effects of death on young and old. Develop a personal understanding of death.

PPSY 638 Behavioral Approaches to Professional Psychology (3) Overview of applied behavioral psychology. Review and examination of applications of major theories to the etiology and treatment of psychopathology.

PPSY 654 Child Abuse and Neglect (2) Introduce students to the major issues related to child abuse. Students will learn detection and causes for all forms of child abuse and neglect. Emphasis will be placed upon the professional responsibilities within Colorado law for reporting child abuse and on resources in assisting the child-victim.

PPSY 655 Community Psychology and Social Systems (3) Graduate students only. Examine psychological (emphasis on social psychology) principles, theories and practices as applied to individual, family and community mental health problems.

PPSY 657 Legal and Ethical Aspects of Counseling and Psychology (3) Covers the interrelationship of ethical standards and legal regulation in professional counseling, education and psychology. Ethical standards, litigation and legal regulation are examined in regard to professional practice.

PPSY 660 Psychological Consultation: Theory and Practice (2) Prerequisite: PPSY 655 or equivalent. Overview of consultation theory and practice. Mental health, expert, collaborative, behavioral and organizational models will be discussed and applied to problems in school/agency settings.

PPSY 662 Group Dynamics and Facilitation (2) Corequisite: PPSY 605. Consent of practicum coordinator. Majors only. The course is designed to study the theoretical bases of group process; including leadership roles, stages of group development, facilitation styles and the research and development of the use of groups in counseling and therapy.

PPSY 663 Research Apprenticeship: School Psychology (1-2) Consent of instructor. Serve as research apprentice to faculty member; must complete minimum of 2 semester credits, 75 clock hours each. Repeatable, maximum two credits.

PPSY 664 Therapeutic Parenting (2) The application and appropriate utilization of therapeutic parenting techniques in academic and mental health settings.

PPSY 665 Family Systems (3) Study general systems theory of family development and interactions. Structural, communication and behavioral approaches to family therapy will be examined as well as ethics, legal issues and current research.

PPSY 666 Couples and Marriage Therapy (2) Prerequisite: PPSY 665. Majors only. Study basic theories of relationship therapy and technical interventions utilized within the major approaches to couple/marital therapy. Also includes spouse abuse, divorce mediation and adjustment and ethical considerations.

PPSY 668 Sexuality Counseling (3) Designed to increase the effectiveness of counselors in treating various sexual issues. Topics to be covered include male and female sexual systems, sexual myths, variations in sexual behavior and common sexual concerns. Various therapeutic approaches to treatment will be presented.

PPSY 669 Advanced Methods: Marriage and Family Therapy (3) Prerequisites: PPSY 612, PPSY 662 and PPSY 665. Course will expand on family therapy models presented in PPSY 665 and include other significant models in the field. Training activities will include diagnosis, assessment, case presentations, enactments and other experiential work. Video use and analysis is significant part of course.

PPSY 670 Psychological Testing and Measurement (2) Understanding psychological testing through an overview of measurement principles, the psychological assessment process, test construction and development and the use of test results in individual psychological evaluations.

PPSY 671 Testing: Analysis and Interpretation (2) Prerequisite: PPSY 670. Investigate standardized and non-standardized psychological instruments, including aptitude, achievement, interest, intelligence and personality tests and analyze them in terms of use, interpretation, ethics, testing programs and case studies.

PPSY 672 Neuropsychology of Learning Disabilities and Traumatic Brain Injuries (3) Prerequisite: PPSY 670. Theoretical and evaluative strategies for understanding learning disabilities and traumatic brain injuries. Covers dysfunctions of neuropsychological processes including perceptual, expressive, attentional, emotional and integrative manifestations; emphasizes remedial and compensatory rehabilitation.

PPSY 673 Individual Tests of Intelligence and Personality (3) Prerequisite: PPSY 670. A survey course of the major intelligence and personality tests used by professional psychologists. Test interpretation and utilization of reports are addressed; test administration is not taught.

PPSY 674 Intellectual and Cognitive Assessment (5) Prerequisites: PPSY 670 and consent of instructor. Historical and theoretical bases of intellectual and psychoeducational testing. Supervised practice in administration, scoring, interpretation and reporting of assessment results. Fee required.

PPSY 675 Intelligence Assessment (3) Prerequisite: PPSY 670 and consent of instructor. Historical and theoretical bases of intelligence measurement; extensive supervised practice in administration and interpretation of Stanford-Binet Scale and Wechsler scales and integration of test data with other assessment techniques. Fee required.

PPSY 676 Infant and Toddler Neuropsychological Assessment and Intervention (3) Prerequisite: EPSY 630 or EDSE 501, PPSY 674 or PPSY 675. Consent of instructor. Covers developmental neuropsychology including perception, attention, emotion, communication, kinesthetic development and acquisition of abstract thinking skills with emphasis on the psychological evaluation and habilitation of infants and toddlers. Fee required.

PPSY 678 Practicum in Personality and Clinical Assessment (5) Prerequisites: PPSY 674 or PPSY 675 and consent of instructor. Develop major strategies and techniques for individual personality assessment of children and adults. Integrate projective assessments with cognitive and behavioral measurements. Fee required.

PPSY 680 Special Populations Practicum (1-3) Prerequisite: PPSY 678. School psychology students explore in depth a special population including those with handicaps that interfere with learning. Instructor arranges research and involvement with a population not included in PPSY 678. S/U graded. Repeatable, maximum three credits.

PPSY 681 Systems Intervention Practicum (3) Prerequisite: PPSY 655. Consent of instructor. Supervised field experience with professional seminar. Application of consultation strategies to schools, mental health or criminal justice agencies.

PPSY 692 Externship (2-8) Consent of practicum coordinator. Majors only. Minimum of 600 total on site hours required. A culminating field experience for qualified agency counseling students in areas of specialty. Permission of instructor must be obtained by the end of the seventh week of the preceding semester. S/U graded. Repeatable, maximum eight credits.

PPSY 693 Practicum in Group Facilitation (4) Prerequisites: PPSY 662, PPSY 702, PPSY 712. Consent of practicum coordinator. Requires a minimum of 12 hours per week. Majors only. Receive supervised experience in the role of group facilitator, including feedback on group process, leadership and intervention skills and problem areas. S/U graded.

PPSY 694 Practicum in Family Therapy (4) Prerequisites: PPSY 612, or PPSY 712, PPSY 666. Consent of practicum coordinator. Majors only. Receive supervised experiential training in counseling with families. Develop diagnostic and therapeutic skills in systemic approaches. Master's level students must also have completed PPSY 669. S/U graded. Fee required.

PPSY 695 Seminar: Contemporary Issues in Family Therapy (2) Prerequisites: PPSY 665, PPSY 666. Majors only. In-depth study of current issues and research in family therapy. Topics change with each offering.

PPSY 702 Practicum in Counseling (4) Consent of practicum coordinator. Requires 12 hours per week minimum. Majors only. Supervised individual counseling experiences in a laboratory setting. Supervision will be directed toward improvement of counseling skills and case management. S/U graded. Fee required.

PPSY 707 Seminar in Personality and Counseling Theories (3) Majors only. A comparative and critical in-depth analysis of personality and counseling theories including the interrelationship, philosophical foundations and practical applications.

PPSY 712 Advanced Practicum in Individual Counseling (4) Prerequisites: PPSY 702, PPSY 707 and consent of practicum coordinator. Majors only. For the student with prior counseling experience, this course offers opportunity to develop counseling skills and philosophy in depth with clients in an individual counseling situation. S/U graded. Fee required.

PPSY 713 Practicum in Supervision of Play Therapy (3) Prerequisite: PPSY 617. Consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervising child psychotherapy training through working with a staff member.

PPSY 714 Practicum in Supervision of Counseling (3-6) Prerequisites: PPSY 702, PPSY 712 and consent of practicum coordinator. Majors only. Students gain experience with a faculty member in supervising counseling practice. Repeatable, maximum six credits.

PPSY 715 Seminar in Counselor Supervision and Theory (2) Prerequisites: PPSY 702, PPSY 707, PPSY 712 and consent of practicum coordinator. Corequisite: PPSY 714. Majors only. Study problems involved in training individuals to engage in the therapeutic process.

PPSY 716 Research Seminar in Counselor Education (3) Majors only. Review and analysis of reported research in counselor education with special emphasis on research published during the last ten years in the professional journals.

PPSY 733 Research Apprenticeship (1) Consent of instructor. Majors only. Requires approximately 3-5 hours per week. Serve as an apprentice to a chosen faculty member and work on professional endeavors such as course planning, writing and research, library searches. S/U graded. Repeatable, maximum 2 credits.

PPSY 755 Supervised Practicum in College Teaching (1-6) Consent of instructor. Majors only. Doctoral students receive experience in observation and supervised practice in college teaching. Repeatable, maximum six credits.

PPSY 758 Advanced Psychopathology (3) Prerequisite: PSY 355 or PPSY 558. Consent of instructor. Acquire understanding of developmental and behavioral disorders of childhood through adulthood. Thorough knowledge of specific pathologies and conditions through intensive reading, research or practical experience.

PPSY 763 Seminar in School Psychology (3) Admission to graduate school psychology program required. Professional issues and problems concerning the school psychologist, including certification and licensure requirements, confidentiality, legal and ethical issues, roles and responsibilities. Observations in schools.

PPSY 773 Practicum in Supervision of Group Facilitation (3) Prerequisites: PPSY 693 and consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of group facilitator training. Work with regular staff member supervising group practicum, observe techniques and processes and receive feedback on progress.

PPSY 774 Practicum in Supervision of Family Therapy (3) Prerequisites: PPSY 694 and consent of practicum coordinator. Majors only. Doctoral candidates receive experience in supervision of family therapist training. Work with regular staff member in supervising family therapy practicum, observe techniques and processes, receive feedback on progress.

PPSY 775 Supervision of Psychological Testing (3-9) Consent of instructor. Under faculty supervision, participate in instruction and supervision of students in testing courses from test administration to the final reporting of test findings.

PPSY 777 Applied Neuropsychology (4) Prerequisites: PPSY 612 or PPSY 702; PPSY 674 or PPSY 675; and PPSY 678. Study of brain-behavior relationships with emphasis on procedures for diagnosing brain dysfunction and developing appropriate neuropsychological interventions. Study of assessment techniques and professional practice issues from conception to adulthood. Fee required.

PPSY 778 Clinical Neuropsychology Practicum (2) Prerequisites: PPSY 612, PPSY 672, PPSY 678, PPSY 777 or consent of instructor. Supervised practice in administering and interpreting neuropsychological tests and procedures for children, adolescents, and adults. Emphasizes rehabilitation, intervention development, neuropsychological report writing and use of the Halstead-Reitan Batteries.

PPSY 779 Practicum in School Psychology (3) Prerequisites: PPSY 674, PPSY 678 and consent of instructor. Provide opportunity to experience various roles frequently expected of school psychologists. Experience takes place in public schools or affiliated agencies with supervision by practicing licensed school psychologists.

PPSY 781 Evaluation of Psychological Services (3) Prerequisite: SRM 602. Learn the theory and practice of psychological program evaluation, taking both a non-statistical and statistical approach. Use data to promote systems change techniques for evaluating effectiveness of consultation therapy, guidance and placement.

PPSY 782 Introduction to Rorschach Administration and Scoring (2) Prerequisites: PPSY 558, PPSY 675 and PPSY 678. Learn conceptual basis for comparing projective with traditional psychometric procedures and begin skills in administration and scoring of Rorschach test. Fee required.

PPSY 789 Internship in School Psychology (2-10) Prerequisites: PPSY 674, PPSY 678, PPSY 779 or consent of instructor. A minimum of 12 hours credit required. Full-time field experience in school psychology under qualified supervisors in selected settings; taken at end of program. S/U graded. Repeatable, maximum 20 credits.

PPSY 791 Internship in Counseling Psychology (5) Consent of instructor. Majors only. For the doctoral candidate in counseling psychology who will complete a one-year, 12-month, 2,000-hour internship after completion of coursework. Register for 5 credits per semester for three consecutive semesters of internship. Repeatable, maximum 15 credits.

PPSY 792 Internship in Counselor Education (3-6) Consent of instructor. For the doctoral student in Counselor Education. Must complete a total of 1200 on site hours in an approved setting for a total of 12 semester hours. Repeatable, maximum 12 credits.

PPSY 793 Intake Practicum (1) Prerequisites: PPSY 702, PPSY 712 and consent of practicum coordinator. Majors only. Provides experience through the Psychological Services Clinic in the initial referral and assessment phase of therapy. The student will evaluate prospective clients and make recommendations regarding treatment. S/U graded. Fee required.

PPSY 794 Clinic Practicum (2) Prerequisites: PPSY 702, PPSY 712, PPSY 793 and consent of practicum coordinator. Majors only. Students gain experience as staff clinicians in the Psychological Services Clinic by providing direct therapeutic services to clients and engaging in case management procedures. S/U graded. Repeatable, maximum four credits. Fee required.

PPSY 797 Doctoral Proposal Research (1-4) Consent of instructor. Majors only. Required for all doctoral students. Student must earn a maximum of 4 hours of credit in this course in partial fulfillment of requirements for all doctoral degrees, before admission to candidacy. S/U graded. Repeatable, maximum four credits.

PPSY 799 Doctoral Dissertation (1-12) Consent of instructor. Majors only and admission to candidacy. Required of all doctoral candidates. A student must earn a minimum of 12 hours of credit for the dissertation in partial fulfillment of requirements for all doctoral degrees. S/U graded. Repeatable, no limitations.

PSCI - Political Science

PSCI 100 United States National Government (3) Identification and analysis of the principal rules, actors and institutions of national politics and explanation of their development. Required of all PSCI majors and minors.

PSCI 105 Introduction to Political Science (3) A comparative survey of political institutions and processes and of the various approaches to the explanation of politics. Required of all PSCI majors and minors.

PSCI 150 Research in Political Science (2) Acquire familiarity with the information sources of political science. Preparation of a bibliography on a topic chosen by the student. Required of all PSCI majors.

PSCI 203 Colorado Politics (3) Examination of Colorado state and local politics including the institutions and processes of policymaking from a comparative perspective.

PSCI 207 Women and Politics (2) Examination of the women's movement and its development including the strategies and tactics employed and the ends sought.

PSCI 208 Introduction to Public Administration (3) Consider historical background and theory of public administration. Interrelationships of public policy formulation and administrative execution and technological and environmental pressures on administrators. Emphasize bureaucratic decision-making, planning, budgeting and public personnel administration.

PSCI 210 Politics in the European Community (3) Prerequisite: PSCI 105. Sophomores or above. An examination of the relations among European-community states and the domestic politics of select members with emphasis on Great Britain, France and Germany.

PSCI 220 Introduction to International Relations (3) Learn the basic principles, processes and problems of the international political system.

PSCI 301 Electoral Politics in the United States (3) Prerequisite: PSCI 100. Sophomores or above. An examination of the process for the nomination and election of national officials. What are the roles of the electorate, interest groups, political parties and the media.

PSCI 302 Law-Making Process in the United States (3) Prerequisite: PSCI 100. Sophomores or above. An examination of the law-making process with emphasis on the Presidency and Congress and the roles of the public interest groups, political parties and the media in the identification and resolution of issues.

PSCI 305 Politics of Education (3) Prerequisite: One Social Science Course. An examination of the policies adopted by the states and the national government and the roles played by interest groups and formal institutions in their formation.

PSCI 306 Constitutional Law (3) Prerequisite: PSCI 100. Sophomores or above. An analysis of Supreme Court decisions regarding civil liberties and relations among the branches of the national government and between the national and state governments.

PSCI 310 Politics of Central and East European States (3) Prerequisite: PSCI 105. Sophomores or above. An examination of the politics of the former Communist states in the area including Russia and of relations among the members of the Commonwealth of Independent States.

PSCI 315 Comparative Public Policy (3) Prerequisites: PSCI 100, PSCI 105. Sophomores or above. Cross-nationally compare public policy in such areas as education, transportation, taxation, population and income maintenance. Identify and explain differences and similarities across policy areas within one country and cross-nationally.

PSCI 318 The Politics of the Developing States (3) Prerequisite: PSCI 105. Sophomores or above. Analysis of the politics of the developing states from a comparative and historical perspective. Emergence of a Third World and domestic politics of selected states will be examined.

PSCI 320 American Foreign Policy (3) Prerequisites: PSCI 100, PSCI 105. Sophomores or above. Analysis of American foreign policy with emphasis on the Twentieth Century and of the process by which policy is made.

PSCI 321 War and Peace (3) Sophomores or above. Examination of the causes and occasions of wars and of the peaceful resolution of international disputes.

PSCI 325 Conflict in the Middle East (3) Sophomores or above. Examination of the principal governmental and non-governmental actors and their policies in the Middle East and relations among them.

PSCI 328 International Law and Organizations (3) Prerequisites: PSCI 105, PSCI 220. Sophomores or above. An examination of international organizations, e.g. U.N. and O.A.S. and international agreements concerning the environment, health, finance, trade, etc.

PSCI 331 Political Philosophy I (3) Juniors or above. Analysis and evaluation of the principles and institutions proposed by major philosophers from Plato to Locke.

PSCI 332 Political Philosophy II (3) Juniors or above. Analysis and evaluation of the principles and institutions proposed by major philosophers from Rousseau to Mill.

PSCI 335 American Political Philosophy (3) Juniors or above. Analysis and evaluation of the principles and institutions proposed by major American philosophers from Madison to Dewey.

PSCI 392 Internship (3-10) Prerequisite: Applicants must have 12 semester hours in political science. Provides opportunity for field experience as an observer and assistant to a public policymaker with supervised but self-directed research. Repeatable, maximum 10 credits.

PSCI 401 Public Policy in the United States (3) Prerequisite: PSCI 100. Sophomores or above. American public policy in the areas of health care, transportation, education, housing, labor-management relations, income maintenance and taxation.

PSCI 405 Problems in American Politics (3) Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group A. Seniors only. Select problems in American politics will be examined.

PSCI 415 Problems in Comparative Politics (3) Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group D. Seniors only. Topics of current interest or controversy in comparative politics.

PSCI 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Juniors and seniors only. To count for credit toward major, students must have taken two courses in the elective group they propose to do the directed study. Repeatable, maximum concurrent enrollment is two times.

PSCI 425 Problems in International Relations (3) Prerequisites: PSCI 100, PSCI 105, PSCI 150 and a course in Group B. Seniors only. Select problems and theories for close and lengthy examination.

PSCI 435 Problems in Political Philosophy (3) Prerequisites: PSCI 100, PSCI 105 and a course in Group C. Seniors only. Select problems or philosophies for close and lengthy attention.

PSY - Psychology

PSY 120 Principles of Psychology (4) Surveys psychology as a science and applied discipline, including research methods, statistics, learning, motivation, sensation, perception, intelligence, personality and physiological, developmental, social and abnormal psychology.

PSY 200 Psychological Statistics and Design (3) (2 lecture, 2 laboratory) Prerequisite: PSY 120. Required laboratory arranged. Introduction to scientific methods and statistical analysis procedures basic to research in psychology. Probability, distribution statistics and hypothesis testing emphasized. Includes computer applications for research report writing, data gathering and analysis.

PSY 230 Human Growth and Development (4) (3 lecture, 3 laboratory) Laboratory required. Negative PPD tuberculin skin test within past six months required. Study basic concepts and issues of growth and development from conception through senescence. Emphasis on cognitive, psychomotor and socioemotional development.

PSY 265 Social Psychology (3) Survey major areas of social psychology, discussing nature of and factors involved in human social behavior, impression management, prosocial behavior, aggression, conformity, obedience to authority, attitude change and interpersonal attraction.

PSY 271 Psychological Testing and Measurements (3) Receive an introduction to psychological test theory, interpretation of results, group and individual tests (cognitive, affective and psychomotor), reliability, validity and standardization procedures.

PSY 323 Health Psychology (3) Prerequisite: PSY 120. Explore psychological factors in maintenance of wellness, treatment of illnesses and recovery from or adjustment to ongoing health problems. Study theory, research methods and clinical applications in health psychology.

PSY 330 Child and Adolescent Psychology (3) Prerequisite: PSY 230. Focus on human development from conception through adolescence, particularly physical, cognitive and socioemotional development. Learn research methods for studying developmental processes.

PSY 331 Maturity and Aging (3) Prerequisite: PSY 230. Explore physical, cognitive and socioemotional variables related to adult development encompassing an age range from 20 to over 100. Emphasis in learning various research methods.

PSY 341 Principles of Learning (3) Prerequisite: PSY 120. Explore principles of classical and operant conditioning. Understand principles as the basis for concept learning, problem-solving, information processing and memory. Emphasis on human behavior in everyday life.

PSY 342 Cognitive and Behavioral Change: Theory, Assessment and Application (3) Prerequisite: PSY 341. Examine various behavioral and cognitive change procedures in terms of their theoretical basis, assessment procedures and applied strategies. Includes operant, respondent and social learning and cognitive procedures.

PSY 344 Group Processes and Roles (3) Majors only. Examine human interactions from perspectives of human relations, communication and group dynamics. Practice effective small and large group membership and leadership roles relevant to growth, therapy and task groups.

PSY 350 Theories of Personality (3) Prerequisite: PSY 120. Study psychological theories and research methods used to explain personality development and functioning including psychoanalytic, neopsychoanalytic, cognitive, behavioral, humanistic and type-trait theories.

PSY 366 Industrial Psychology (3) Discover basic methods employed by psychologists in selection, placement, training and motivation of industrial personnel. Examine psychological factors influencing morale, production and job satisfaction.

PSY 370 Chicano Psychology (3) The course is designed to examine the behavior of Mexican-Americans in an Anglo-American cross-cultural setting. Taught in English.

PSY 375 Sensation and Perception (3) Prerequisite: PSY 120. Survey of how humans perceive the world through vision, hearing, touch, taste and smell. Examine physiological mechanisms, sensory processes, development, and theories of perception for each sensory modality. Lab arranged.

PSY 389 Research in Human Development (3) Become familiar with methodologies, ethical issues and research literature in the study of human development. Learn critical thinking and scientific writing skills through the process of conducting research.

PSY 400 Research Design and Analysis (5) (4 lecture, 2 laboratory) Prerequisites: PSY 120, PSY 200. Psychology majors only. Advanced research methods and statistical analysis including ANOVA, regression, survey, factor analytic and qualitative research designs. Computer applications for research report writing, data gathering and analysis. Laboratory required. Fee required.

PSY 407 Introduction to Counseling Theories (3) Prerequisite: PSY 350. Survey current theoretical approaches with individuals and groups. Not intended as training in counseling approaches, but as basis for future study.

PSY 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PSY 440 Cognition (3) Prerequisite: PSY 120. Explore human cognition by examining perception, attention, memory, intelligence, problem and cognitive development. Become familiar with neural bases of cognition, theoretical perspectives and research methods.

PSY 443 Motivation (3) Prerequisite: PSY 120. Investigate motivational concepts and related research: drive, goals, direction, incentive, reinforcement, external stimulation, emotion, homeostasis, biological aspects, instinct and self-actualization.

PSY 455 Abnormal Psychology (3) Prerequisite: PSY 120. Juniors or above. Study abnormal behavior: causes, symptoms, characteristics, classification, prevention and treatment.

PSY 467 Psychology of Prejudice (3) Understand basic causes of prejudice and how prejudicial behavior is learned and diminished. Experience increased understanding of others.

PSY 480 Physiological Psychology (5) (4 lecture, 2 laboratory) Prerequisites: PSY 120, introduction to BIO/ZOO or equivalent. Required laboratory. Survey neuroanatomy and neurophysiology, functional relationship between nervous system and behavior. Review sensory and motor processes and investigative procedures. Consider biochemical correlates of learning and other behaviors. Fee required.

PSY 482 Behavioral Genetics (2) Prerequisite: PSY 120. Introductory genetics course recommended. Consider genetic basis of behavior in humans and animals, contemporary issues, including genetic counseling, eugenics, intelligence and genetic correlates of psychopathology.

PSY 490 History and Systems in Psychology (3) Prerequisite: PSY 120. Learn about psychological ideas and systems, psychology and philosophy of science, goals, laws, paradigms and evolution of the science of psychology. Many graduate programs in psychology recommend taking this at undergraduate level.

PSY 491 Psychology Field Experience (1-6) Junior and above. Psychology Majors only and consent of instructor. Get full or part-time experience working with professionals in psychology, for one or more semesters. Make arrangements with instructor and supervisor during semester before registration. S/U grade. Repeatable, maximum six credits.

PSY 493 Practicum in Psychology (1-3) Consent of instructor and department chairperson. Students assist psychology professor with research or laboratory. Thirty-eight (38) clock hours must be spent for each hour of credit. Students may apply a maximum of four (4) credits to a psychology major. Repeatable, maximum six credits, under different subtitles. S/U grade.

PSY 495 Special Topics in Psychology (1-5)

Scheduled on irregular basis. Repeatable, under different subtitles.

PSY 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

PSY 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

PSY 550 Cognitive Development (3) A survey of empirical research and theory on the cognitive development of children. Classic and contemporary theoretical approaches will be considered as will such specific topics as the development of attention, perception, memory, intelligence and reasoning.

PSY 582 Behavioral Genetics (2) Prerequisite: PSY 120. Introductory genetics course recommended. Consider genetic basis of behavior in humans and animals, contemporary issues, including genetic counseling, eugenics, intelligence and genetic correlates of psychopathology.

PSY 590 Seminar in History and Systems (3) Philosophical perspectives and major theories and systems are reviewed as they contributed to the development of contemporary psychology. Course required for state psychology board licensing eligibility.

PSY 595 Special Topics in Psychology (1-5) Scheduled on an irregular basis to explore special areas in psychology and carries a subtitle for each offering. Check department office for topics currently planned. Repeatable, under different subtitles.

PSY 600 Graduate Research Methodology (3) Graduates only. Majors only. Introduction to basic concepts in psychology research, including experimental design, nonexperimental methods, statistical analysis and researchers' ethical responsibilities. Overview of ongoing research in Psychology Department.

PSY 620 Assessment and Interviewing (2) Develop verbal and written skills in interview and assessment procedures; study related ethical and legal issues.

PSY 621 Practicum in College Teaching of Psychology (2) Master's students arrange with individual faculty to receive experience in observation and supervised practice. Repeatable, maximum four credits. S/U grade.

PSY 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

PSY 625 Principles of Neuropsychology (3) Survey of functional neuroanatomy and neurophysiology related to human psychological processes. Discussion of theories of neuropsychology and their experimental and clinical applications. Introduction to neuropsychological disorders and their assessment/ treatment.

PSY 626 Introduction to Neuropsychological Assessment (3) Prerequisite: PSY 625. Principles of behavioral and neurophysiological assessment. Standards of practice. Practice experience with behavioral/neurophysiological measurement, development of problem-lists and report writing.

PSY 627 Psychometrics (3) Survey of psychometric considerations within areas of personality, psychopathology, intelligence, neuropsychology. Topics include; domain theory test construction, test operating characteristics, multivariate methods within psychometrics, exemplars across major areas

PSY 643 Theories of Motivation (3) Biological, learned, social, cognitive, operational and stimulus-based approaches to motivation; emphasis on implications for study of human behavior.

PSY 664 Advanced Social Psychology (3) Survey major social psychology areas, learning social observation techniques, nature and factors of human social behavior, cooperation, prosocial behavior, aggression, attitude change, interpersonal attraction and impression management. Observe social psychological phenomena in laboratory sessions.

PSY 680 Neuroscience Seminar (3) Graduates only. Reviews current theories and research regarding neurophysiological underpinnings of typical and atypical human behavior. Topics include: neuroscientific investigation of behavioral domains, cognitive models, genetic contributions, and developmental influences.

PSY 693 Research Practicum (1-3) Each student will collaborate in research with a psychology professor. The research topic and nature of involvement are determined by consultation between student and professor. S/U grade.

PSY 694 Practicum (3) Consent of instructor. Majors only. Supervised experience in diagnostics of neuropsychological deficits. Individual and group supervision emphasizing behavioral interview and psychometric data. S/U graded.

PSY 699 Thesis (1-6) Recommended in place of M.A. project, especially for students applying to doctoral programs. S/U graded. Repeatable, no limitations.

REC - Recreation

REC 203 Introduction to Recreation and Leisure (3) Designed to orient the beginning recreation major in the scope, breadth and nature of the professional recreation education program. Students will also be made aware of the influence of leisure on American society.

REC 204 Introduction to Therapeutic Recreation (3) Orientation to therapeutic recreation service. Learn the philosophy, principles and goals of adapted recreation activities that meet the needs of individuals with handicaps, disabilities or are in treatment hospitals, schools, homes, recreation and rehabilitation centers through reports, discussions, observations and visitations.

REC 251 Leisure, Recreation and the Older Adult (3) Discover the role of leisure and recreation in the lives of the elderly and how aging influences recreation programming methods and techniques. Learn concepts, practices, trends, current issues in aging and research. Visits, observations and practicum required.

REC 264 Social and Cultural Recreation Skills (3) Designed to acquaint students with an understanding of individuals and groups in recreational settings. Cultural arts, playgrounds and special events are covered in depth.

REC 269 Recreation Management Skills (4) Acquaint the student with the skills necessary to organize and manage recreation activities and facilities.

REC 394 Practicum in Recreation and Leisure Studies (1-3) Prerequisite: REC 203. Consent of instructor. Supervised experience in agency, which provides recreation and leisure services. Supervisor evaluation and written report required. S/U graded. Repeatable, maximum of six credits.

REC 395 Special Topics in Recreation (1-3) Designed to investigate a specific aspect of recreation. S/U graded. Repeatable, maximum of six credits under different subtitles.

REC 408 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

REC 415 Clinical Aspects of Therapeutic Recreation (3) Prerequisite: REC 204. Concentrate on treatment issues, needs and procedures and/or medications and their side effects in this introduction to common disabilities and illnesses and their implications to therapeutic recreation. Considerations of the current clinical practices will be explored. Restricted course.

REC 416 Procedures and Techniques of Therapeutic Recreation (3) Prerequisite: REC 415. Gain exposure to methods and techniques used for assessing leisure needs, problem areas, treatment issues and effective treatment planning. Develop facilitation techniques for achievement of client goals and objectives. Restricted course.

REC 421 Contemporary Problems in Therapeutic Recreation Service (3) Prerequisite: REC 204. Learn the history, philosophy of the current practice of providing recreation services to special populations through educational experiences in observation, visitations, reports, required reading, discussions and special projects. Explore current issues and research data.

REC 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

REC 426 Seminar in Recreation Program Development in Therapeutic Recreation (3) Study the foundations, principles and procedures utilized in developing recreation programs in therapeutic recreation.

REC 451 Administration of Leisure Delivery Systems (3) Prerequisite: REC 269. Majors only. Focus on the organization and administration of community recreation agencies, studying 10 essential areas: fact-finding, legal aspects, municipal organization, department structure, financing, records and reports, publicity, public relations, personnel and professionalism.

REC 468 Programs in Recreation (3) Prerequisites: REC 203, REC 204, REC 269. Majors/minors only. Learn to effectively plan varied types of recreation programs for community centers, pools, parks, sports complexes and playgrounds. Concern will be given to special groups such as teens, the aged, young adults and the handicapped.

REC 472 Recreation Leadership (3) Prerequisites: REC 203, REC 269. A study of the philosophy, techniques, nature and methods of leadership as it relates to the leisure services profession. The course includes observation and practical experience.

REC 492 Internship in Recreation (12) Consent of instructor. Make the transition from the classroom to the professional field. Assume the normal responsibilities as the entry level professional in the practical situation. Requires one semester of full time activity under professional guidance.

REC 495 Senior Seminar (3) Majors only. Research, observe, participate, present and finalize the necessary requirements prior to enrolling in REC 492 Internship in Recreation. Study concepts important to transition from student to professional. Review of evaluation and research techniques.

REC 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

REC 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

REC 610 Evaluation of Recreation and Leisure Services (3) Be acquainted with evaluation and research in the field of parks and recreation services. Accomplish an actual evaluation in a recreation setting.

REC 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

REC 675 Planning Areas and Facilities in Recreation (3) Study major processes of planning, construction and maintenance of recreation facilities and areas. Visits and projects required.

REC 676 Seminar in Contemporary Problems in Recreation (3) Examine in detail the major problems in recreation and leisure in modern America. Emphasis will be given to the use of problem solving methods.

REC 677 Parks and Recreation Management (3) Concentration on the more complex areas of present-day management, including financial resources, budgeting, federal programs, bonds, conference planning, annual reports and use of contract services.

REC 678 Organization and Operation of Park and Recreation Services (3) Develop ability to effectively organize and train staff to operate programs and facilities unique to park and recreation services. Emphasize employment practices, staff supervision and evaluation, liability, public relations and certification.

REC 692 Graduate Internship (3-12) Consent of instructor. Put into practice the knowledge and skills learned in the classroom and assume responsibilities in administration, supervision and evaluation, as well as conducting various activities. Students must complete 12 hours of Recreation coursework before internship. Unlimited repeatability.

RUS - Russian

Note: Russian courses are not offered on a regular basis. Consult the Department of Foreign Languages for current status of the program.

RUS 101 Elementary Russian I (5) For students with no previous Russian. Conversational Russian using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

RUS 102 Elementary Russian II (5) Prerequisite: RUS 101. Continuation of 101. Conversational Russian using oral techniques with reading and writing drills. Stresses comprehension, structure, pronunciation, fluency and cultural awareness. Fee required.

SCED - Science Education

SCED 422 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SCED 441 Methods of Teaching Secondary School Science (3) Full admission to PTEP or certification at the undergraduate level required. Corequisite: EDLS 363. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to total secondary program, emphasizing teaching techniques.

SCED 470 Teaching Science in the Elementary School (3) (2 lecture, 2 laboratory) Full admission to PTEP or certification at the undergraduate level required. Develop a knowledge of objectives, methods and materials needed for teaching a functional elementary science program. Fee required.

SCED 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SCED 513 Professional Renewal (1-12) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SCED 541 Methods of Teaching Secondary School Science (3) Full admission to PTEP or certification at the undergraduate level required. Corequisite: EDLS 363. Prerequisite to student teaching. Consider curriculum and classroom organization, testing and evaluation, procedures and materials, relationship of subject area to total secondary program, emphasizing teaching techniques.

SCED 570 Teaching Science in the Elementary School (3) (2 lecture, 2 laboratory) Full admission to PTEP or certification at the undergraduate level required. Develop a knowledge of objectives, methods and materials needed for teaching a functional elementary science program. Laboratory activities included. Fee required.

SCED 622 Directed Studies (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SCED 671 Elementary and Middle School Science Curriculum (2) Analysis of elementary and middle level science programs in terms of learning theory research and application including teaching strategies and influence of science, technology and society on science teaching.

SCED 678 Science Education Seminar (1-2) Investigate current science education research, report on topics of interest in recent literature, discuss individual research problems. Repeatable, maximum four credits.

SCED 680 Science Curricula in Secondary/College Settings (3) A survey of contemporary trends and issues associated with designing, implementing and evaluating science curricula at the secondary and tertiary levels.

SCED 694 Science Education Research (3) Prerequisite: SRM 502 or equivalent. An introduction to research in discipline-based science education, providing background and experience in the major activities associated with current practice in both field-based and quantitative studies.

SCI - Science

SCI 103 Physical Science for the 21st Century (3) Optional laboratory available (SCI 104). Important concepts in physical science applications to 20th century problems and anticipated applications in the 21st century. Taught by Physics or Chemistry faculty.

SCI 106 Introduction to Spaceflight (3) Topics to be covered include history of spaceflight, mechanics of propulsion and satellite motion, living and working in space and the space shuttle. Taught by Physics faculty.

SCI 109 The Cosmos (3) Present concepts of the universe, including the "big bang" and "steady state" theories, black holes and continuing expansion. Recent television programs such as "Cosmos" will be studied. Taught by Physics faculty.

SCI 115 Equity Issues in a Technological Society (3) Develop science/mathematics process skills. Become familiar with activities designed to increase the interests and skills of subgroups under-represented in science/mathematics/technology professions.

SCI 265 Physical Science Concepts for Elementary Teachers (4) (3 lecture, 2 laboratory) Investigation of basic physical science concepts, emphasizing their application to the physical world. For elementary education majors interested in a general understanding of science. Fee required.

SCI 291 Scientific Writing (3) Prerequisite: ENG 122. Techniques of problem identification, literature survey, data interpretation and synthesis and technical reports.

SCI 391 Computer Applications in Science (2) (1 lecture, 2 laboratory) Science teachers will learn how to apply the microcomputer as a tool in the classroom for interfacing with equipment, data management, software evaluation, record keeping and word processing.

SCI 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SCI 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SCI 535 Principles of Physics I (3) (2 lecture, 3 laboratory) Investigation of basic principles of kinematics, dynamics, momentum, work and energy with technological applications. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

SCI 536 Principles of Physics II (3) (2 lecture, 3 laboratory) Investigation of basic principles of energy related to the study of thermodynamics and wave motion with technological applications. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

SCI 537 Principles of Physics III (3) (2 lecture, 3 laboratory) Prerequisites: SCI 535, SCI 536 or equivalent. Investigation of basic principles of electricity and magnetism with technological applications. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

SCI 538 Principles of Physics IV (3) (2 lecture, 3 laboratory) Investigation of basic principles of quantum physics and special relativity with applications in atomic, nuclear and astrophysics. For certified teachers interested in improving understanding and pedagogic delivery of physics concepts.

SCI 591 Computer Applications in Science (2) (1 lecture, 2 laboratory) Science teachers will learn how to apply the microcomputer as a tool in the classroom for interfacing with equipment, data management, software evaluation, record keeping and word processing.

SOC - Sociology

SOC 100 Principles of Sociology (3) Overview of basic theories, methods, concepts and issues central to the discipline of sociology. Examine the relationship between social behavior and society.

SOC 120 Introduction to Family Studies (3) Survey the characteristics, issues and problems of the family as a social institution. Topics discussed include: marital satisfaction, conflict, mate selection, alternatives and social change.

SOC 141 Introduction to Criminal Justice (3) A survey of the three components of the criminal justice system: police, courts and correction. Emphasis on the structural and situational factors influencing the way these agencies of social control operate.

SOC 170 Social Problems (3) Theoretical and conceptual perspectives on social problems and related social policy implications. Definitional and social causation models of social problems are examined.

SOC 221 Sociology of Gender (3) Prerequisite: SOC 100 or equivalent. Examine gender stratification and social inequality. Topics include cultural definitions of masculinity and femininity, socialization and social change.

SOC 235 Social Change (3) Prerequisite: SOC 100 or equivalent. Study various sociological approaches to change including social movements and revolutions as the product of multiple social factors. Compare the processes of change in underdeveloped countries with change in industrial societies.

SOC 237 Sociology of Minorities (3) Prerequisite: SOC 100 or equivalent. Examine intergroup relations and the dynamics of power relating to ethnicity and other dimensions of social life that have produced tension and conflict among groups historically and in the present.

SOC 247 Social Deviance (3) Prerequisite: SOC 100 or equivalent. Study social deviancy, particularly in terms of types, sources, functions, dysfunctions and social control mechanisms that operate relative to those departures from conformity.

SOC 270 World Population Problems (3) Prerequisite: SOC 100 or equivalent. Examine population problems in various societies in the world. Review theories of population growth. Relate the population problem to factors that indicate the web of interdependency.

SOC 272 The Community (3) Prerequisite: SOC 100 or equivalent. Study the community from small to large as a complex of human relations. Explore the community historically and functionally on a cross-cultural basis through a critical perspective.

SOC 275 Sociology of Mental Illness (3) Prerequisite: SOC 100 or equivalent. Sociological perspectives on mental illness. Examine conceptual models of mental illness, social epidemiological help-seeking behavior, social impacts of treatment, mental health delivery systems and social policy issues.

SOC 277 Social Movements (3) Prerequisite: SOC 100 or equivalent. Explore significant aspects of unconventional political, economic, religious and cultist organizations. Study institutionalized and uninstitutionalized groups and their members.

SOC 302 Variable Topics in Sociology (1-4) Prerequisite: SOC 100 or equivalent. Topics may include sociology of religion, human ecology, social conflict, fascism, urban sociology, etc. Repeatable up to two times, under different subtitles.

SOC 322 Women and Aging (3) Prerequisite: SOC 100 or equivalent. Aging from a female perspective. Aspects of maturity and old age such as widowhood, work and retirement and living situations are examined with particular reference to women.

SOC 324 Issues in the Family (3) Prerequisite: SOC 100 or SOC 120. Examine theoretical perspectives and research issues in the family. Analyze current issues in the family studies areas. Possible topics: singlehood, prenuptial contracts, dual career households, divorce, parenting, cohabitation, custody arrangements.

SOC 326 Sociology of Childhood and Adolescence (3) Prerequisite: SOC 100 or equivalent. Examine the societal definition of childhood and adolescence and how social institutions influence socialization.

SOC 330 Social Organizations (3) Prerequisite: SOC 100 or equivalent. Study the social structure of modern bureaucratic organizations. Review human behavior in organizations from a social psychological perspective.

SOC 332 Social Psychology (3) Prerequisite: SOC 100 or equivalent. Examine the relationships between individuals and social systems. Focus on language interaction, self-conceptualizing behaviors and change. Review dominant social psychological theories and issues.

SOC 333 Social Class and Inequality (3) Prerequisite: SOC 100 or equivalent. Presents a critical analysis of the realities of America's open-class system, making use of current theoretical perspectives and systematic research. Examines cross-cultural perspectives of stratification.

SOC 340 Juvenile Delinquency (3) Prerequisite: SOC 100 or equivalent. Study the history of juvenile law, enforcement structures and explanations for the emergence of delinquency. Study the American juvenile legal system and its major problems.

SOC 346 Criminology (3) Prerequisite: SOC 100 or equivalent. Survey criminal behavior generally, including theories of causation, types of crime, extent of crime, law enforcement, criminal justice, punishment and treatment.

SOC 347 Sociology of Corrections (3) Prerequisite: SOC 100 or equivalent. Survey of the history and structure of punishment in Western societies. Review of the major philosophies and practices of modern corrections.

SOC 351 Classical Social Theory (3) Prerequisite: SOC 100 or equivalent. Study the major pioneering classical social theorists who established the foundations of modern sociology during the late 19th and early 20th centuries. Focus on the emergence of sociology as a discipline.

SOC 352 Contemporary Social Theory (3) Prerequisites: SOC 100, SOC 351. Review the major modern theoretical paradigms and prominent contemporary theorists in sociology. Examine contemporary issues in sociology.

SOC 360 Computer Applications in the Social Sciences (3) Prerequisite: SOC 100 or equivalent. Basic skills in the application of computer technology to substantive issues in sociology. Data collection, data analysis, simulation and data archives. Mainframe, mini- and microcomputer applications.

SOC 361 Social Research (3) Prerequisites: SOC 100 or equivalent, STAT 150. Introduce research methodologies in the social sciences. Study the logic of research, role of theory, measurement, sampling and research designs. Fee required.

SOC 362 Social Statistics (3) Prerequisites: SOC 100 or equivalent, STAT 150. Introduce applied statistics in social science research. Levels of measurement; measures of central tendency and variability, probability; estimation and hypothesis testing; measures of association; reduction in error and variance models; chi square. Fee required.

SOC 371 Sociology of Aging (3) Prerequisite: SOC 100 or equivalent. Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

SOC 373 Political Sociology (3) Prerequisite: SOC 100 or equivalent. Evaluate structural strains and alternatives of left and right development in society. Analyze the state, its relationship to the masses, elites and problems of legitimacy.

SOC 378 Sociology of Education (3) Prerequisite: SOC 100 or equivalent. Systematically attempt to relate sociological concepts to the educational institution. Focus on a scientific analysis of social processes and patterns involved in the educational system.

SOC 409 Senior Seminar in Sociology (3) Prerequisite: SOC 100 or equivalent. Culminating seminar to provide opportunity for students to experience sociology by conducting a research project on a topic of interest.

SOC 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SOC 423 Violence and the Family (3) Prerequisite: SOC 100 or equivalent. Examine major issues in family violence such as defining family violence, comparing types of explanations from different disciplines and translating social science perspectives to policy and social service delivery systems.

SOC 444 Sociology of Criminal Law (3)

Prerequisite: SOC 100 or equivalent. Survey the origins of criminal law, study its structure and administration and the effects of legal sanctions.

SOC 445 Comparative Justice Systems (3)

Prerequisites: SOC 100 and SOC 141. Examine the criminal justice systems in a variety of countries throughout the world. Compare and contrast those systems with each other and with the United States' justice system.

SOC 490 Internship (3-9)

Prerequisite: SOC 100 or equivalent. Study the basic principles of field research by working as a volunteer intern with a community service agency. Repeatable, maximum of nine credits.

SOC 491 Internship in Social Issues (3-9)

Prerequisites: SOC 100, SOC 272, SOC 351 or equivalent. Social Issues Internship provides the student with an opportunity to study and gain experience in a social issue by working with a community agency or group. Repeatable maximum 9 credits.

SOC 493 Practicum in Family Studies (3-9)

Prerequisites: SOC 100, SOC 324, SOC 352, SOC 361. Majors only. Seniors or above. Complete an individualized applied research project for a family service agency. Classroom component addresses issues in applied research, professional socialization and family policy. Capstone course for the Family Studies emphasis.

SOC 508 Workshop (1-6)

A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SOC 513 Professional Renewal (1-3)

Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SOC 520 Seminar in the Family (3)

Explore family in depth, focusing primarily on American family. Also, contrast the American system with that of other societies.

SOC 523 Violence and the Family (3)

Examine major issues in family violence such as defining family violence, comparing types of explanations from different disciplines and translating social science perspectives to policy and social service delivery systems.

SOC 530 Social Organizations (3)

Study the social structure of modern bureaucratic organizations. Review human behavior in organizations from a social psychological perspective.

SOC 544 Sociology of Criminal Law (3)

Survey the origins of criminal law; study its structure and administration and the effects of legal sanctions.

SOC 550 Philosophical Issues in Sociology (3)

Prerequisite: SOC 351 or equivalent. Explore a variety of philosophical problems, issues and contentions forming a backdrop to theoretical and empirical sociology.

SOC 551 Classical Social Theory (3)

Study the major pioneering classical social theorists who established the foundations of modern sociology during the late 19th and early 20th centuries. Focus on the emergence of sociology as a discipline.

SOC 554 Criminological Theories (3)

Analyze and evaluate the major historical and contemporary theories of criminal behavior.

SOC 561 Social Research (3)

Prerequisites: SOC 100 or equivalent, STAT 150. Introduce research methodologies in the social sciences. Study the logic of research, role of theory, measurement, sampling and research designs. Fee required

SOC 562 Social Statistics (3)

Prerequisites: SOC 100 or equivalent, STAT 150. Introduce applied statistics in social science research. Levels of measurement; measures of central tendency and variability, probability; estimation and hypothesis testing; measures of association - reduction in error and variance models; chi square. Fee required.

SOC 563 Qualitative Methods (3)

Examination of major qualitative methods in sociology: ethnography, participant observation, phenomenological sociology, ethnomethodology, verstehen sociology, hermeneutics and other methods. Emphasis is on field research and application of specific qualitative methods.

SOC 571 Sociology of Aging (3)

Prerequisite: SOC 100 or equivalent. Survey theories and research on the social aspects of aging with emphasis on later maturity and old age.

SOC 602 Seminar in Perspectives in Sociology (3)

Variable topics may include theory construction, research and theoretical development as it occurs in various areas of sociology, or current issues and problems within the profession. Repeatable up to two times, under different subtitles.

SOC 622 Directed Studies (1-3)

Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SOC 632 Seminar in Social Psychology (3)

Prerequisite: SOC 332 or equivalent. Analyze major perspectives and discuss certain issues, problems and trends. Emphasize specific theoretical approaches in the field: interaction, cognitive, reinforcement, field and social learning theories, etc.

SOC 639 Seminar in Clinical Sociology (3)

Examine important current issues and activities related to clinical sociology, survey research methods and intervention techniques used by clinical sociologists, consider ethics of clinical sociology, emphasize critical thinking, research and writing.

SOC 650 Applied Social Theory (3)

Provide understanding of the role of theory in the social sciences, provide knowledge of major paradigms utilized in contemporary social science theory, assess applied explanatory strengths and weaknesses of paradigms.

SOC 660 Applied Social Research (3)

Apply techniques of applied sociological research to an approved community project in applied social research, understand the relationship between basic and applied social research.

SOC 680 Social Policy Analysis (3)

Examines relationship between social policy and society. Socio-cultural conditions and social institutions which affect policy formation are studied. Utilization of sociological concepts and methods in applied settings.

SOC 690 Practicum in College Teaching of Sociology (2)

Master's students arrange with individual faculty to receive experience in observation and supervised practice. S/U Graded.

SOC 691 Research Internship (1-9)

Prerequisites: Nine hours of graduate credit in sociology and consent of instructor. S/U graded. Put classroom learning into practice with research in an organizational setting. Repeatable, maximum 9 credits.

SOSC - Social Science**SOSC 300 Social Studies Methods of Inquiry (3)**

This course is designed to explain and integrate methods and forms of explanation found in the social science disciplines and history.

SOSC 341 Teaching Secondary Social Studies (3)

Full admission to PTEP or certification at the undergraduate level required. Prerequisite to student teaching. Learn curriculum and course planning, teaching methods, strategies and techniques, materials, microcomputer applications, testing and evaluation.

SOSC 470 Theory and Research in Social Science (3)

Study theory and research in the social sciences, emphasizing the logic of thinking analytically about human behavior in the context of the social sciences and history.

SOSC 605 Advanced Instruction in Secondary Social Studies (3)

Full admission to PTEP or certification at undergraduate level required. Consider recent trends in the organization and teaching of social studies courses in the secondary school and evaluate new courses of study, new materials and new equipment.

SOSC 699 Thesis (1-6)

Required of Master of Arts Candidates in Sociology on recommendation of major advisor. Repeatable, no limitations.

SPAN - Spanish**SPAN 101 Elementary Spanish I (5)**

First part of a two semester sequence emphasizing the development of a functional proficiency in the four basic language skills of listening, speaking, reading and writing. Oral communication is stressed. Fee required.

SPAN 102 Elementary Spanish II (5)

Prerequisite: SPAN 101 or equivalent. A continuation of SPAN 101. Fee required.

SPAN 201 Intermediate Spanish I (3)

Prerequisite: SPAN 102 or two years of high school Spanish. Review the basic principles of the language and emphasize oral Spanish communication. Become familiar with Spanish and Latin American civilization. Fee required.

SPAN 202 Intermediate Spanish II (3)

Prerequisite: SPAN 201 or two years of high school Spanish. Review basic principles of the Spanish language and emphasize oral communication. Become familiar with Spanish and Latin American civilization. Fee required.

SPAN 255 Music of the Hispanic World (3)

Prerequisite: Two years of high school Spanish or one year of college Spanish. An introduction to Hispanic culture through music. Music, songs and instruments will be studied in their cultural perspectives. Course helps to develop Spanish language, vocabulary and pronunciation. Taught in Spanish.

SPAN 301 Spanish Grammar (3)

Prerequisite: At least three years of high school Spanish or equivalent. A systematic study of the more complex theories and forms of Spanish grammar with emphasis on mood, tense and voice.

SPAN 302 Spanish Composition (3)

Prerequisite: SPAN 301. Designed to increase the student's composition skills in Spanish through the use of original essays, descriptions, compositions, research papers and translations.

SPAN 303 Spanish Conversation (3) Prerequisite: At least three years of high school Spanish or equivalent. A course designed to develop a high level of proficiency in spoken Spanish. Language functions are practiced in the context of practical everyday situations.

SPAN 304 Introduction to Hispanic Literature (3) Prerequisite: At least three years of high school Spanish or equivalent. To acquaint the student with the elements of the various literary genres and literary criticism. The MLA Handbook will be introduced for research writing.

SPAN 321 Spanish Civilization and Culture (3) Prerequisite: Two years of college Spanish or equivalent. Designed to acquaint students with general trends of Spanish civilization and culture. Includes historical, economic, political and artistic developments of Spain from prehistoric times to the present.

SPAN 331 Latin American Civilization and Culture (3) Prerequisite: Two years of college Spanish or equivalent. Designed to examine the historical and cultural development of the Latin American countries. Surveys the major historical events from the pre-Columbian period to the present.

SPAN 350 Masterpieces of Spanish Literature (3) Prerequisite: SPAN 321. Study Spanish Golden Age, Spanish and Spanish American Baroque and Latin American literary works of the period after independence. Includes poetry, novel, essay and drama.

SPAN 351 Masterpieces of Latin American Literature (3) Prerequisite: SPAN 350. Study the masters of contemporary Latin American literature and the late 19th and 20th century Spanish literature.

SPAN 405 Spanish Phonetics and Dialects (3) Prerequisite: Three years of high school Spanish or equivalent. The study of the major semantic, syntactic and phonological aspects of the Spanish language dialects and the standard Latin American Spanish found in the Americas.

SPAN 406 Introduction to Translation (3) Prerequisites: SPAN 301, SPAN 302, SPAN 303, SPAN 405. Introduction to translation techniques and resource material in a wide variety of subjects and styles. Emphasis will be placed on translation accuracy.

SPAN 407 Spanish for Oral Proficiency (3) Prerequisite: Four years of high school Spanish or equivalent. A course designed to develop oral proficiency by exposing students to advanced and superior linguistic functions.

SPAN 408 Study Abroad Program: Coursework (9) Prerequisite: Two years of college Spanish or permission of department. Gives the student practical experience in the use of Spanish. Includes formal instruction in conversation, composition and culture at the foreign study center. To be taken with SPAN 409.

SPAN 409 Study Abroad Program: Project (3) Prerequisite: Two years of college Spanish or permission of department. Students research contemporary and historical cultural phenomena of Spain or Mexico by completing an area studies project of the study center's region. To be taken with SPAN 408.

SPAN 410 Chicano Spanish Linguistics (3) Prerequisite: SPAN 202. This course examines concepts and theories relevant to the linguistic situation of the Chicano in the Southwest. Focus of the course will be on Spanish and English varieties pertinent to Chicanos, and the linguistic/cultural situation that emerges when these two languages come into contact along the U.S.-Mexico border and throughout the nation. Chicano Spanish linguistics draws from a variety of disciplines including: linguistics, sociology and psychology, and attempts to delve into the forces that have contributed to the present reality of Chicanos and their language.

SPAN 411 Spanish for Bilingual Education I (3) Prerequisite: At least two years of college Spanish or equivalent. Develops Spanish language skills for teaching language arts and math. ACTFL/ETS Spanish Oral Proficiency Interview must be taken before student teaching. Can be taken after SPAN 412.

SPAN 412 Spanish for Bilingual Education II (3) Prerequisite: At least two years of college Spanish or equivalent. Develops Spanish language skills for teaching science and social studies. ACTFL/ETS Spanish Oral Proficiency Interview must be taken before student teaching. Can be taken before SPAN 411.

SPAN 414 Contrastive Features of Spanish and English (3) Prerequisite: At least three years of high school Spanish or equivalent. Consent of instructor. General contrastive approach to analysis Spanish/English. Underscores areas of ease or difficulty through which native speakers of Spanish and native speakers of English pass when learning their respective second language. Course taught in Spanish, interest for teaching bilingual education, ESL.

SPAN 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SPAN 452 Mexican Literature (3) Prerequisite: Two years of college Spanish or equivalent. A study of the most outstanding works of Mexican literature. Examines the works from the Mexican Revolution, Criollismo, Magical Realism and contemporary Social-Realism.

SPAN 455 Spanish Readings (3) Prerequisite: Two years of college Spanish or equivalent. Designed to accommodate the reading abilities and interests of students. Extensive reading to be discussed in class and in conference. Reading content is variable and determined by instructor.

SPAN 456 Spanish and Latin American Short Story (3) Prerequisite: Two years of college Spanish or equivalent. Study of the short story in Spain and Spanish America. Will review its development from the Middle Ages to the present. Includes works of Matute, Garcia Marquez, Borges and Rulfo.

SPAN 457 Literature of U. S. Hispanics (3) Prerequisite: Two years of college Spanish or equivalent. Examines the most important works of literature written by Hispanics from the United States. Includes the four genres: poetry, drama, novel and short story.

SPAN 458 Cervantes (3) Prerequisite: Two years of college Spanish or equivalent. To become acquainted with the creative process of the author, the structure of the novel and the characters and understand the life and culture of Spain during this period.

SPAN 459 Hispanic Drama (3) Prerequisite: Two years of college Spanish or equivalent. A study of Hispanic drama masterpieces from Spain's Golden Age to the post-Civil War period; Latin America's Contemporary Theatre of Social Protest; and the United States' Hispanic Theatre Movement.

SPAN 501 Spanish Grammar (3) Prerequisite: Three years of high school Spanish or equivalent. A systematic study of the more complex theories and forms of Spanish grammar with emphasis on mood, tense and voice.

SPAN 502 Spanish Composition (3) Prerequisite: SPAN 301. Designed to increase the student's composition skills in Spanish through the use of original essays, descriptions, compositions, research papers and translations.

SPAN 503 Spanish Conversation (3) Prerequisite: Three years of high school Spanish or equivalent. A course designed to develop a high level of proficiency in spoken Spanish. Language functions are practiced in the context of practical everyday situations.

SPAN 505 Spanish Phonetics and Dialects (3) Prerequisite: Three years of high school Spanish or equivalent. The study of the major semantic, syntactic and phonological aspects of the Spanish language dialects and the standard Latin American Spanish found in the Americas.

SPAN 507 Spanish for Oral Proficiency (3) Prerequisite: Four years of high school Spanish or equivalent. A course designed to develop oral proficiency by exposing students to advanced and superior linguistic functions.

SPAN 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SPAN 510 Advanced Placement Program-Spanish (1-3) Consent of instructor. A course designed to provide content and pedagogical information related to the teaching of grammar and literature in the secondary school Spanish advanced placement program. S/U graded. Unlimited repeatability.

SPAN 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

SPAN 514 Contrastive Features of Spanish and English (3) Prerequisite: three years of high school Spanish or equivalent. Consent of instructor. General contrastive approach to analysis Spanish/English. Underscores areas of ease or difficulty through which native speakers of Spanish and native speakers of English pass when learning their respective second language. Course taught in Spanish, interest for teaching bilingual education, ESL.

SPAN 521 Spanish Civilization and Culture (3) Prerequisite: Two years of college Spanish or equivalent. Designed to acquaint students with general trends of Spanish civilization and culture. Includes historical, economic, political and artistic developments of Spain from prehistoric times to the present.

SPAN 531 Latin American Civilization and Culture (3) Prerequisite: Two years of college Spanish or equivalent. Designed to examine the historical and cultural development of the Latin American countries. Surveys the major historical events from the pre-Columbian period to the present.

SPAN 550 Masterpieces of Spanish Literature (3) Prerequisite: SPAN 521. Study Spanish Golden Age, Spanish and Spanish American Baroque and Latin American literary works of the period after independence. Includes poetry, novel, essay and drama.

SPAN 551 Masterpieces of Latin American Literature (3) Prerequisite: SPAN 550. Study the masters of contemporary Latin American literature and the late 19th and 20th century Spanish literature.

SPAN 552 Mexican Literature (3) Prerequisite: Two years of college Spanish or equivalent. A study of the most outstanding works of Mexican literature. Examines the works from the Mexican Revolution, Criollismo, Magical Realism and contemporary Social-Realism.

SPAN 555 Spanish Readings (3) Prerequisite: Two years of college Spanish or equivalent. Designed to accommodate the reading abilities and interests of students. Extensive reading to be discussed in class and in conference. Reading content is variable and determined by instructor.

SPAN 560 Spanish Civilization and Culture (2) Prerequisite: Three years of college Spanish or equivalent. Interpretation of the civilization and culture of Spain from its earliest beginnings to the present. Includes an analysis of the artistic, political and economic currents that have shaped modern Spain.

SPAN 561 Latin American Civilization and Culture (2) Prerequisite: Three years of college Spanish or equivalent. Designed to examine the cultural heritage of Latin America and its current state of political, economic and social development. Forces affecting the everyday life of the people is emphasized.

SPAN 562 Mexico and United States Hispanic Civilization and Culture (2) Prerequisite: Three years of college Spanish or equivalent. The course examines the history and cultural heritage of the contemporary Mexican and of the Hispanics (Chicano, Cuban, Puerto Rican) living in the United States.

SPAN 563 Hispanic Cultural Topics (1-3) Prerequisite: Three years of college Spanish or equivalent. Selected readings and discussion of a variety of cultural topics that manifest themselves in the everyday life of the Hispanic people. Customs and traditions will be emphasized. Repeatable, maximum three credits.

SPAN 570 Readings in United States Hispanic Literature (1-3) Prerequisite: Three years college Spanish or equivalent. Designed to cover literature in English or Spanish by United States Hispanics: Mexican, Cuban or Puerto Rican Americans. Readings in narrative, theatre, poetry. Content is variable and determined by instructor. Repeatable, maximum three credits.

SPAN 571 Readings in Spanish Literature (1-3) Prerequisite: Three years of college Spanish or equivalent. Thorough coverage of topics such as any period of Spanish literature, especially the Golden Age, the generation of 1898 and post-Civil War novel. Repeatable, maximum three credits.

SPAN 572 Readings in Latin American Literature (1-3) Prerequisite: Three years of college Spanish or equivalent. Designed to cover selected readings in Latin American literature. Course may be designed by author, themes or genre. Content is variable and will be determined by instructor. Repeatable, maximum three credits.

SPAN 573 National Literatures (2) Prerequisite: Three years of college Spanish or equivalent. Give a basic understanding of the most important writers and their works of a given Spanish-speaking country.

SPAN 574 Masterpieces of 20th Century Spain (2) Prerequisite: Three years of college Spanish or equivalent. Study the Masterpieces of 20th Century Spanish literature. Topics might include the generation of 1898, poetry and theatre of 20th century, pre-Civil War novel and post-Civil War novel.

SPAN 575 Masterpieces of 20th Century Latin America (2) Prerequisite: Three years of college Spanish or equivalent. A study of the most representative Masterpieces of 20th century Latin American literature. Representative topics might include the modern novel, the essay, contemporary theatre and poetry and fantastic literature.

SPAN 576 Mexican Literature (2) Prerequisite: Three years of college Spanish or equivalent. Provides a basic understanding of Mexican contemporary literature, its general trends and some of the most important authors in each of the four genres: poetry, novel, theatre and short story.

SPAN 580 Grammar Topics (1-3) Prerequisite: Three years of college Spanish or equivalent. An in-depth study of difficult and selected structures of the language, which traditionally present problems; such as: the subjunctive mood, ser and estar, preterite vs. imperfect and others. Repeatable, maximum three credits.

SPAN 581 Advanced Spanish Grammar (2) Prerequisite: Three years of college Spanish or equivalent. An intensive study the more complex theories and forms of Spanish grammar, with emphasis on mood, tense and voice.

SPAN 582 Spanish for Oral Proficiency (2) Prerequisite: Three years of college Spanish or equivalent. A course designed to develop oral proficiency by exposing students to superior linguistic functions.

SPAN 583 Oral and Written Discourse (2) Prerequisite: Three years of college Spanish or equivalent. Designed to enable students to speak and write extensively in Spanish, using description, narrations and exposition. Emphasis will be on fluency, accuracy and organization.

SPAN 584 Spanish Pronunciation and Dialects (2) Prerequisite: Three years of college Spanish or equivalent. Study the semantic, phonological and syntactic characteristics of the Spanish language dialects spoken in the United States. Special emphasis on Spanish pronunciation is included.

SPAN 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SPCO - Speech Communication

SPCO 100 Basics of Public Speaking (1) Corequisite SPCO 103. Overview of concepts central to effective public speaking including managing nervousness, researching and organizing information, thinking critically, delivering messages, fielding questions and influencing an audience.

SPCO 102 Introduction to Speech Communication (3) An introduction to the nature of speech communication as symbolic behavior including an overview of communication contexts.

SPCO 103 Speaking Evaluation (2) Corequisite: SPCO 100. Evaluation of basic concepts central to effective speaking, listening, responding and critical thinking in an oral context.

SPCO 111 Oral Interpretation (3) (2 lecture, 2 laboratory) A study in the oral interpretation of literature, especially prose and poetry. Laboratory experiences include substantial student performance in individual and group presentations.

SPCO 201 Inquiry in Speech Communication (3) An introduction to speech communication inquiry; includes practice with skills of critical thinking, library research and social science techniques.

SPCO 211 Argumentation and Debate (3) Study the basics of argumentation including reasoning, evidence and critical thinking. Practice the practical skills of public debating.

SPCO 212 Professional Speaking (3) Prerequisite: SPCO 100 or instructor's consent. Practical experience in presentation design and delivery to facilitate understanding of a message and for influence of others.

SPCO 221 Non-Verbal Communication (3) An overview of current theory and research in non-verbal communication. The course will focus on non-verbal communication message systems and their impact on the communication process.

SPCO 232 Principles of Interviewing (3) Study interviewing from the perspectives of both the interviewer and interviewee. Examine information seeking, employment, appraisal, grievance, firing and exit interviews.

SPCO 321 Interpersonal Theory (3) An undergraduate course focusing on the philosophical and theoretical issues of self-perception and relationships as they are affected by verbal and non-verbal communication.

SPCO 323 Intercultural Communication (3) Learn about the communication concepts and theories inherent in the process of interacting with individuals in cross-cultural and inter-ethnic situations.

SPCO 324 Family Communication (3) Investigate family structure from a human communication perspective.

SPCO 330 Small Group Communication (3) Consent of instructor. Apply problem-solving and decision-making techniques and theories, particularly in the relationship between communication and group variables such as leadership roles and cohesiveness.

SPCO 331 Organizational Communication (3) Study the dynamics of communication activities within an organization.

SPCO 341 Courtroom Communication (3) Investigate the relationship between communication and the law and legal argumentation and persuasion within courtroom advocacy. Analyze communication within the legal profession.

SPCO 343 Persuasion (3) Investigate major variables surrounding attitude change and human persuasion.

SPCO 350 Communication in the Classroom (3) Prerequisite: SPCO 201 or consent of instructor. Investigate communication theory and research related specifically to the classroom setting. Course content will focus on the development of self-concept perception, verbal and non-verbal language and group dynamics.

SPCO 352 Methods of Teaching Secondary Communication (3) PTEP full admittance required. Focus of the course is on curriculum and classroom organization, testing and evaluation, procedures and materials specific to secondary speech communication instruction.

SPCO 354 Directing Speech Communication Activities (3) (2 lecture, 2 laboratory) Prerequisites: SPCO 100, SPCO 103, SPCO 111. Instruction and experience creating, producing, directing and acting in a variety of performance experiences applicable to public school teachers.

SPCO 404 Rhetorical Theory (3) Systematic review of the major contributions to rhetorical theorists for their probable impact on communication.

SPCO 422 Directed Study (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SPCO 431 Communication and Leadership (3) Examine theories of leadership, major leadership research findings and various leadership methods. Consider how the principles derived from leadership literature can be applied to small group and organizational settings.

SPCO 444 Argumentation Theory (3) Investigate the nature of argumentation in personal and social relationships. Primary attention is paid to how people use reason-giving processes to resolve personal and social conflicts.

SPCO 461 Seminar in Speech Communication (1-3) Investigate issues of current concern for SPCO professionals with subject varied according to faculty expertise. Repeatable, maximum nine credits, under different subtitles.

SPCO 491 Speech Communication Theory (3) Consent of instructor. Graduating seniors only. Summative course of the nature and function of human communication theory and research including an overview of the new traditions of theory and current perspectives in the discipline. Assessment of student practicum competency.

SPCO 492 Undergraduate Internship (1-10) Supervised work experience in area of specialization. Submit a proposal to the coordinator of internships six weeks before registration. Maximum of three semester credit hours may be counted toward the major. Repeatable, maximum five credits.

SPCO 502 Teaching College SPCO Courses (1) Required of all graduate teaching assistantships in SPCO. S/U Graded. Repeatable, maximum three credits.

SPCO 504 Rhetorical Theory (3) Systematic review of the major contributions of rhetorical theorists for their probable impact on communication.

SPCO 511 Instructional Communication (3) This graduate seminar for educators will focus on contemporary issues, theoretical perspectives and academic research in communication instruction.

SPCO 512 Persuasion (3) Investigate the implications of contemporary research and theory in the area of persuasion and attitude change.

SPCO 514 Interpersonal Communication (3) An overview of current theoretical perspectives on interpersonal communication and representative supportive research.

SPCO 515 Group Communication (3) Examine theories of group process, major group process research findings and how the principles derived from speech communication literature can be applied to small groups.

SPCO 517 Organizational Communication (3) Examine theories of organizing, research findings on organizational communication and how the principles derived from speech communication impact institutions.

SPCO 524 Conflict Management (3) Focus on the processes involved in conflict, conflict analysis and communication responses to conflict.

SPCO 531 Communication and Leadership (3) Examine theories of leadership, major leadership research findings and various leadership methods. Consider how the principles derived from leadership literature can be applied to small group and organizational settings.

SPCO 534 Communication Consulting (3) Learn step-by-step about the communication consulting process and the communication theories and concepts that have application to communication consulting.

SPCO 541 Courtroom Communication (3) Investigate the relationship between communication and the law and legal argumentation and persuasion within courtroom advocacy. Analyze communication within the legal profession.

SPCO 542 Seminar in Political Communication (3) Graduate students only. Analysis and criticism of political discourse using theories and methods from the discipline of speech communication.

SPCO 544 Argumentation Theory (3) Investigate the nature of argumentation in personal and social relationships. Primary attention is paid to how people use reason-giving processes to resolve personal and social conflicts.

SPCO 552 Methods of Teaching Secondary Communication (3) PTEP full admittance required. Focus of the course is on curriculum and classroom organization, testing and evaluation, procedures and materials specific to secondary speech communication instruction.

SPCO 553 Professional Speaking (3) Prerequisites: SPCO 100, SPCO 103. Theory and practice of advanced speech composition, presentational decisions and techniques in a variety of contexts.

SPCO 561 Seminar in Speech Communication (1-3) Investigate issues of current concern, for SPCO professionals with subject varied according to faculty expertise. Repeatable, maximum nine credits, under different subtitles.

SPCO 592 Internship (1-3) Receive professional communicative experience. Submit a proposal to the Internship Coordinator six weeks before registration. Hours may not be credited to 30 basic hours in speech communication graduate program. Repeatable, maximum six credits.

SPCO 600 Graduate Study in Communication (3) Orientation to graduate study with emphasis on learning to conduct literature reviews using the major journals of the speech communication discipline. Introduction to research using quantitative, qualitative and rhetorical approaches.

SPCO 601 Qualitative Methods in Communication Research (3) Orientation to the methods of qualitative research that are most frequently used in the speech communication discipline. Practical experience in data gathering and analysis procedures.

SPCO 602 Quantitative Methods in Communication Research (3) Orientation to the methods of quantitative research that are most frequently used in the speech communication discipline. Practical experience in data gathering and analysis procedures.

SPCO 603 Communication Theory (3) The study of current theories of human communication and the process of theory building.

SPCO 605 Rhetorical Criticism (3) Systematic review of the major contributions of rhetorical criticism theorists for their probable impact on communication.

SPCO 622 Directed Studies (1-3) Individualized investigation under the direct supervision of faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SPCO 699 Thesis (1-6) Optional for Master of Arts candidates on recommendation of major advisor. S/U graded. Repeatable, no limitations.

SRM - Statistics and Research Methods

SRM 502 Applied Statistics (4) Majors only or consent of instructor. Hypothesis formulation and testing; estimation and confidence limits; one- and two-sample tests; and statistical decision theory. Study inferences arising from distribution functions: t, F, chi-square, binomial, normal. Study applications and interpretation of single and multiple classification designs.

SRM 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

SRM 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U graded, unless section is approved (by the Graduate School) as letter graded. Repeatable under different subtitles.

SRM 520 Introduction to Statistical Computing (1) The course is designed to familiarize students with the use of statistical packages on both the mainframe and microcomputer platforms. Students will learn to organize, input, and analyze data.

SRM 551 Mathematical Statistics with Applications I (4) Prerequisite: MATH 233 or consent of instructor. Study of probability, random variables, distributions, moments, expected values and standard probability laws, probability bounds and point estimation

SRM 552 Mathematical Statistics with Applications II (4) Prerequisite: SRM 551. Continuation of SRM 551. Sampling distributions, estimation techniques, maximum likelihood, tests of hypothesis, confidence intervals, regression and chi-square tests.

SRM 600 Introduction to Graduate Research (3) Principles of research, design and analysis. Read and critique published research. Required of all first year graduate students except in those departments with substitutes. Taught every semester.

SRM 602 Statistical Methods I (3) Prerequisite: SRM 600. Brief review of descriptive statistics. Covers probability, inference and sampling, correlation, hypothesis testing one-way ANOVA and an introduction to computer statistics packages.

SRM 603 Statistical Methods II (3) Continuation of SRM 602. Review of one-way ANOVA. Covers multiple comparisons, factorial designs, nested and mixed models, repeated measures, analysis of covariance and use of computer statistics packages.

SRM 606 Multiple Linear Regression Analysis (3) Prerequisite: SRM 502 or SRM 603. Takes the matrix approach to continuous and categorical variables, polynomial and selected non-linear models; formulation of ANOVA and ANCOVA designs and collinearity; regression methods; backward elimination, forward selection, stepwise and stagewise; and part-regression.

SRM 607 Non-Parametric Statistics (3) Prerequisite: SRM 502 or SRM 603. Study non-parametric tests of research hypotheses relative to the data to which the test is applicable; the rationale underlying the test; examples of application of the test in behavioral research; and comparison of the test with its parametric equivalent.

SRM 608 Experimental Design (3) Prerequisite: SRM 502 or SRM 603. Study high-order factorial design, three-factor design with repeated measurements, trend analysis and response surface analysis, transformation, pre- and post-multiple comparison considerations, power of F-tests, fixed, mixed and random models.

SRM 609 Sampling Methods (3) Prerequisite: SRM 502 or SRM 603. Learn methods of survey sampling, including such topics as simple and stratified random sampling, ratio estimation, cluster sampling, systematic sampling, questionnaire design, problems of non-response and sources of non-sampling errors.

SRM 610 Statistical Methods III (3) Prerequisite: SRM 502 or SRM 603. Additional multiple regression topics. Introduction to MANOVA designs, discriminant analysis, factor analysis, cluster analysis, and path analysis.

SRM 613 Matrices for Statisticians (3) Prerequisites: MATH 525, SRM 604. Advanced topics in matrix algebra with applications to statistics. Topics will include quadratic forms, vector spaces, eigenvalues, eigenvectors, generalized and conditional inverses, systems of linear equation, approximate solutions and patterned matrices.

SRM 614 Linear Models (3) Prerequisite: MATH 525, SRM 502, SRM 551. Advanced topics in matrix algebra with applications to statistics serve as the basis for the development of the theory of linear models as a structure for handling problems in regression and correlation, analysis of variance, and experimental.

SRM 616 Regression: Advanced Topics (3) Prerequisite: SRM 552, 614. Advanced topics in regression will include diagnostics, remedial measures, qualitative variables, ridge regression, stepwise procedures, autocorrelation, nonlinear regression and binary dependent variables.

SRM 619 Resampling Methods (3) Prerequisite: SRM 502. Use of a simulation computer language to solve both simple and complex problems in probability and probabilistic statistics. Methods considered are Monte Carlo simulation, randomization tests, and bootstrap procedures.

SRM 622 Directed Studies (1-3) Consent of instructor. Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

SRM 631 Multivariate Analysis I (3) Prerequisite: SRM 551, SRM 614. Introduces multivariate data structures including geometrical properties and interpretations, the multivariate normal distribution, multivariate one- and two- sample tests on mean vectors and covariance matrices, one-and two-factor MSNOVAs, and profile analysis.

SRM 632 Multivariate Analysis II (3) Prerequisites: SRM 552, SRM 631. Elementary theory and application of multivariate statistical techniques to data analysis including principal components, factor analysis, canonical correlation, discriminant analysis, and cluster analysis.

SRM 641 Seminar: Special Topics (1-4) Consent of instructor. Advanced topics in applied statistics, measurement theory and research. Specific topics will be determined by the instructor and by current student needs. Repeatable, under different subtitles.

SRM 663 Apprenticeship (1-3) Consent of instructor. Work with faculty member on professional endeavors such as research, writing, course planning or public service. Requires 3 hours per week for each credit. S/U graded. Repeatable, maximum 9 credits.

SRM 670 Evaluation: Models and Designs (3) Prerequisite: SRM 600. Theories and methods of program evaluation, models of evaluation and the social context of evaluation. Nature and types of evaluation, planning, proposal writing and measurements.

SRM 671 Evaluation: Advanced Methods (3) Prerequisite: SRM 670. Advanced methodological techniques for program evaluation. Topics include tailoring evaluations to the needs of clients and stakeholders, diagnostic procedures and needs assessments, program monitoring and judging the impact of programs.

SRM 680 Qualitative Research Methods (3) Prerequisite: SRM 600 or equivalent. Qualitative research theory and design, selecting and sampling of qualitative data, methodologies, data collection analysis and interpretation. Evaluation of qualitative research.

SRM 681 Advanced Qualitative Research Methods (3) Prerequisite: SRM 680. Students will conduct field work using multiple data collection strategies, analyze data, interpret findings, and write a report. Includes an introduction to computerized qualitative data analysis.

SRM 689 Internship in Applied Statistics (1-10) A supervised program of observation and participation in a one-semester research assignment. The internship requires a minimum of 38 hours of student field experience for each credit hour given. Repeatable, maximum 10 credits. S/U graded.

SRM 694 Practicum (1-9) Consent of instructor. Experiential learning in an on-campus setting in conjunction with supervision by a faculty member. Students work a minimum of 3 hours per week for each hour of credit. Repeatable, maximum 18 credits. S/U graded.

SRM 699 Thesis (1-6) Optional for Master of Science program in Applied Statistics and Research Methods. Empirical investigation under the direction of a graduate faculty member. Thesis must be approved by the faculty committee and submitted in appropriate style and format to the Graduate School. S/U graded. Repeatable, no limitations.

SRM 700 Advanced Research Methods (3) Prerequisites: SRM 600 and either SRM 502 or 602. Advanced research designs, concepts and methods. Required of all specialist and doctoral candidates.

SRM 742 Seminar (1-4) Prerequisite: SRM 605 or consent of instructor. Study advanced topics in statistics, mathematics, research design and information processing. Repeatable, maximum four credits.

SRM 755 Supervised Practicum in College Teaching (1-6) Practice college teaching under supervision. S/U graded. Unlimited repeatability.

SRM 797 Doctoral Proposal Research (1-4) Required of all doctoral students. Doctoral students must earn 4 hours as partial fulfillment of requirements for the doctorate. Check with the Graduate School regarding appropriate procedures and formats. S/U graded. Repeatable, maximum of four credits.

SRM 799 Doctoral Dissertation (1-12) Required of all doctoral candidates. Must earn 12 hours as partial fulfillment of requirements for the doctorate. Dissertation must be approved by and defended before the dissertation committee. S/U graded. Repeatable, no limitations.

STAT - Statistics

STAT 150 Introduction to Statistical Analysis (3) Prerequisite: MATH 023 with a grade of "C" or better or a full year of high school modern second year algebra with a grade of "C" or better or consent of instructor. Study techniques used in organizing data, including frequency distributions, histograms, measures of central tendency, measures of dispersion, probability distributions, point estimation, interval estimation and testing hypotheses.

STAT 250 Statistics for Health Sciences (3) Prerequisite: MATH 023 with a grade of "C" or better or a full year of high school modern second year algebra with a grade of "C" or better or consent of instructor. Receive an introduction to applied statistics, including such topics as histograms, central tendency, dispersion, normal distribution, hypothesis testing, chi-square and regression. Primarily for nursing and health science majors.

STAT 311 Basic Statistical Methods (4) Prerequisites: MATH 124, STAT 150 or equivalent. Testing hypothesis, ANOVA, chi-square analysis, non-parametric techniques and introduction to regression. Course primarily for statistics minors and major emphases.

STAT 406 Multiple Linear Regression (3) Prerequisite: STAT 311 with the grade of "C" or better. Topics in multiple linear regression, estimation of model parameters, inferences, diagnostics, model assumptions, ANOVA formulation.

STAT 409 Sampling Techniques (3) Prerequisite: STAT 311 with the grade of "C" or better. Introduction to elementary sampling concepts. Includes random sampling, stratified sampling, cluster sampling and systematic sampling. Inferences and assumptions are presented for all sampling methods.

STAT 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

STAT 495 Topics in Applied Statistics (1-4) Consent of instructor. Topics selected from linear models, experimental designs, sampling, multivariate analysis, operations research methods or other areas in applied statistics form the focus of this course. Repeatable, under different subtitles.

STEP - Secondary Teacher Education Program

STEP 160 Introduction to Secondary Teaching (2) Corequisite: STEP 161. Introduction to secondary education for those wishing to explore a career in teaching. Overview of school purposes and organization, academic disciplines, state requirements for teachers, professional portfolio. Formation of cohort groups.

STEP 161 Observation and Analysis of Secondary Teaching (1) Corequisite: STEP 160. Analysis of issues in secondary education: diversity, effective instruction in specific disciplines, professional resources, legal and ethical rights and responsibilities of teachers and schools. Field component delivered by means of technology.

STEP 262 Observation/Analysis of Secondary Teaching II (1) Corequisites: EDF 366, EDSE 360, EPSY 349. Consent of advisor. Provisional or full admittance to PTEP required. School observations in variety of school settings. Bi-weekly seminars.

STEP 300 Using Technology in the Content Area (1) Provisional or full admittance to PTEP required. A technological focus on major curriculum areas with a content course will be made. National curriculum projects and up to date systems will be studied to acquire experience and expertise. Repeatable under different sub-titles.

STEP 363 Clinical Experience: Secondary (2) Prerequisites: STEP 262, ET 201, EDF 366. Corequisites: ET 301, EDRD 324, and the appropriate content methods class. Juniors or above. Full admittance to PTEP required. Consent of advisor. Professional development for secondary majors. Minimum of 30 contact hours with level 7-12 children in a specific area for each hour of credit. Weekly seminar. Students video-taped.

STEP 490 Secondary Student Teaching (1-15) Consent of advisor. Prerequisites: EDRD 324, STEP 363, ET 301. Full admittance to PTEP required. A 15 week experience in content area teaching in junior high/senior high where the student demonstrates effective teaching from a culmination of prior knowledge, skills, and behaviors.

TED - Teacher Education

TED 600 Professional Seminar I (1) This course is designed to provide students with information regarding program procedures and expectations, development of professional portfolios, and implementation of a teacher-researcher project.

TED 601 Conceptions of Schooling (3) Examination and analysis of the nature and scope of American education the common school tradition and what today's schools are for; becoming a citizen in a democratic society.

TED 602 Teacher Leadership (3) Assist teachers in exploring their professional context (socially, politically and organizationally) and their role in enhancing, general schooling conditions, learning processes and outcomes.

TED 603 Alternative Teaching and Assessment Strategies (3) The content of this course is intended to expand teacher's repertoires in the classroom by helping them develop facility with alternate assessment and instruction strategies.

TED 604 Affirming Diversity: Implications for Educators and Schools (3) Broad range of diversity issues, critical analysis of current educational policies and practices to support and design curricula, instructional processes, and learning environments for diverse student population.

TED 605 Professional Seminar II (2) Prerequisites: SRM 600, TED 600. This course is designed to be a capstone experience. Synthesize and integrate what has been learned in the content and pedagogy coursework with classroom teaching and other work related experiences.

TESL - Teaching English as a Second Language

Note: For information on Elementary Education and Middle School Education Endorsement in English as a Second Language or the minor, see the information provided under the Department of Hispanic Studies.

TESL 301 TESL Practicum I (2) A beginning level field experience in Teaching English as a Second Language. S/U graded.

TESL 302 TESL Practicum II (2) Prerequisite: TESL 301. An intermediate/ advanced level field experience for students taking a TESL minor. S/U graded.

TESL 400 Methods and Approaches of ESL/EFL (3) Methodology teach ESL/FL. Prepare teachers to develop teaching ability, meet students' needs ESL/EFL educational settings. Impart theoretical knowledge, display array of activities pertinent to teaching situation, give general information of profession ESL/EFL.

THEA - Theatre Arts

THEA 100 Individual Performance in Theatre (2) For majors only or consent of instructor. Participation in Little Theatre of the Rockies productions. Students must participate in 90 hours. Unlimited repeatability. Fee required.

THEA 130 Introduction to the Theatre (3) For non-majors. A survey of theatre history and its effects upon modern theatre. The roles of the actor, director, choreographer, technicians, designers and critic will be explored through live presentations. Emphasis on research.

THEA 135 Playscript Analysis (3) Majors/minors only. A survey of dramatic literature through script analysis. (This course is a prerequisite for many other courses in the Theatre Department and should be taken in the first year.)

THEA 149 Survey of Technical Theatre (3) Required laboratory arranged. Majors/minors only. Course for Theatre majors/minors that covers the practical application of stage construction, lighting and costume construction. Familiarizes student with equipment, hardware and safety in each area and hands-on experience with practical projects. Fee required for majors/minors.

THEA 160 Beginning Acting (3) The emphasis of the course is on the primary needs of acting: emotional recall and recreation, concentration, motivation, personality and character development, physical and vocal ingredients of character and believability. This course will be offered in Fall Semester for Majors/minors only, and in the Spring it will be open to all students.

THEA 190 Stage Speech I (1) A laboratory course designed to help the student develop good speech for the stage through intelligent use and care of the speaking instrument and appreciation and control of the language of the playwright, the play and the character.

THEA 191 Stage Speech II (1) Prerequisite: THEA 190 or consent of instructor. The final course in a two-course series dealing with the development of intelligent use and care of the speaking instrument. Primary emphasis is on Linklater and Lessac approaches.

THEA 210 Graphics and Management (3) (2 Lecture, 1 Laboratory) Prerequisites: THEA 149, THEA 135. A study of the graphics of scene construction, design and rigging; backstage organization and stage management; basic skills in mechanical drafting, technical script analysis, period research and stage management organization.

THEA 235 Stage Dialects (1) Prerequisites: THEA 190, THEA 191. The purpose of this course is an in-depth study of the major or most often used stage dialects. The goal will be for each actor/actress to gain special dialect skills that will increase the power and effectiveness of their performances. Acting emphasis only. Majors only.

THEA 240 Beginning Stage Directing (3) Prerequisites: THEA 135, THEA 149 and THEA 160 or permission of instructor. A basic course in the principles of directing a play. The major focus is on contemporary theories and practices of stage directing.

THEA 250 Stage Make-Up I (1) Prerequisite: THEA 160. A basic course designed to acquaint the student with the principles of stage make-up.

THEA 260 Scene Study (2) Prerequisite: THEA 160. Acting or directing emphasis only. A step by step process approach to scene study. Units will be covered connecting the actor with the discovery of purpose/obstacle/relationships/given circumstances/ character/orchestration and text scoring.

THEA 275 Stage Movement I (1) (2 contact hours per week) Two part series of laboratory courses in the preparation of actor's skills in movement. Emphasis is movement analysis, body alignment and corrections.

THEA 276 Stage Movement II (1) (2 contact hours per week) Prerequisite: THEA 275. Second in a two-part series of laboratory courses in the preparation of actor's skills in movement. Emphasis is movement analysis, body alignment and corrections.

THEA 308 Theatre Workshop (1-4) Receive information about current important ideas in many fields of knowledge from authorities nationally known in their fields of specialization. Repeatable, under different subtitles.

THEA 310 Beginning Scene Design (3) (2 Lecture, 1 Laboratory) Prerequisite: THEA 210. A fundamental course in scene design. Emphasis is placed on the aesthetics and styles of stage design and the development of rendering skills and staging concepts.

THEA 320 Stage Costume Design (3) Prerequisite: THEA 149 or consent of instructor. Introduction to designing costumes for the stage. Emphasis on the historical, conventional and visual tools and media available to the designer for translating verbal script to visual and tactile form.

THEA 330 History of Theatre I (3) The development of American and European theatre from its classical roots through the mid-17th Century. Emphasis on research.

THEA 331 History of Theatre II (3) A continuation of THEA 330, focusing on American, European and Eastern theatre. Emphasis on research.

THEA 335 Advanced Voice Production (1)
Prerequisites: THEA 190, THEA 191. Majors only. The purpose of this course is an advanced study of the natural resources of the human voice and body as artistic resources for the performer. The course is designed to explore both the processes and products of vocal craft work for the actor. Acting emphasis only.

THEA 340 Workshop in Directing I (3) (2 lecture; 2 laboratory) Prerequisite: THEA 240. Basic directing techniques as applied to period styles. Focus on research for the director and application of period styles in scene work.

THEA 341 Workshop in Directing II (3)
Prerequisite: THEA 240. Basic directing techniques as applied to modern styles. Focus on various anti-realistic styles and their application to modern eclectic theatre. Practical application in scene work.

THEA 350 Summer Theatre (10) Acceptance by Theatre Arts staff required. Eight weeks of eight-hour daily rehearsals for summer productions. Repeatable, maximum 40 credits.

THEA 360 Advanced Acting Styles I (2)
Prerequisites: THEA 160, THEA 260 or consent of instructor. Acting Emphasis only. Focus on modern drama from early realism through contemporary eclectic styles in this advanced acting laboratory. Repeatable, maximum four credits.

THEA 361 Advanced Acting Styles II (2)
Prerequisites: THEA 160, THEA 260 or consent of instructor, and THEA 360. for acting emphasis only. Concentration on period styles including Greek, Elizabethan, Commedia dell'Arte, English Restoration and French Neo-classic in this advanced acting laboratory. Repeatable, maximum four credits.

THEA 370 Stage Combat (2) (4 contact hours per week) Study of combat techniques used in the theatre, including blade work, hand-to-hand and stage falls.

THEA 372 Period Movement (1) (2 contact hours per week) Prerequisites: THEA 275, THEA 276. Corequisite: THEA 361; for acting emphasis only. A laboratory course in the preparation of the actors' skills in movement. Emphasis upon period movement.

THEA 385 Methods of Teaching Drama in the Secondary School (3) Corequisite: EDLS 363. PTEP prerequisite to student teaching. Learn teaching techniques, curriculum and classroom organization, testing and evaluation, procedures and materials and relationship of the subject area to the total secondary program.

THEA 401 Practicum in Theatre (1-4) Qualified undergraduates must have permission of instructor, advisor and department. Supervised and specialized field work involving theory and methodology in practice. Two copies of evaluation paper required, filed with instructor/department. Repeatable, maximum eight credits.

THEA 404 Summer Crew Work in Theatre (1) Backstage crew work on summer Little Theatre of the Rockies. If S/U grade is chosen, for a "S," a student must participate in a minimum of 30 hours for each hour of credit.

THEA 410 Advanced Design and Technology (3) Laboratory required. Prerequisite: THEA 310. A survey of traditional and contemporary stage technology, including study of advanced techniques of scene design; model making and multimedia renderings; and problems in shifting the multiple set show. Repeatable, maximum of six credits.

THEA 411 Stage Lighting (3) (2 Lecture, 1 Laboratory) Prerequisite: THEA 210. An introduction to lighting theory and lighting design applicable to all staging practices.

THEA 420 Advanced Costume Technical Design (3) (2 Lecture, 1 Laboratory) Prerequisites: THEA 149, THEA 320, THEA 330, THEA 331 or consent of instructor. Specialization on topics of design, patterns, materials and techniques of reproducing historical costume. Specific historical period determined by the instructor in consultation with the students in the course. Emphasis on research. Repeatable, maximum six credits.

THEA 422 Directed Research in Theatre (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

THEA 440 Directing the One-Act Play (1)
Prerequisite: THEA 340 or THEA 341 or consent of the instructor. Produce a one-act play under instructor's supervision. Extensive promptbook and well-written self-analysis required.

THEA 464 Audition Techniques (2) Prerequisites: THEA 160, THEA 260. Acting Emphasis only. Covers all the various aspects of audition techniques. Units include: extensive work on selection of material and preparing and presenting auditions. Additional experiences will include resume, picture preparations and guest instructor information.

THEA 500 Graduate Individual Performance in Theatre (1) Participation in Little Theatre of the Rockies productions. Open to graduate students. Students must participate in 90 hours. Unlimited repeatability.

THEA 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

THEA 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

THEA 601 Graduate Practicum in Theatre (1-4) Qualified graduate, permission of instructor, advisor and department. This specialized, supervised field work course involves theory and methodology in practice. Copies of written evaluation must be filed with instructor and department. Repeatable, maximum four credits.

THEA 610 Seminar in Technical Theatre (3)
Prerequisites: THEA 310, THEA 411 or THEA 420 or consent of instructor. A seminar to study specialized topics in scene design, stage lighting, theatre architecture, staging techniques or stage costuming. Emphasis is placed on research study. Unlimited repeatability.

THEA 622 Graduate Directed Research in Theatre (1-4) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

Visual Arts – See prefix ART

WS - Women's Studies Program

WS 101 Women in Contemporary Society (3)
Cultural analysis of social institutions and their effects on the lives of women.

WS 248 Introduction to Women's Studies (3)
Prerequisite: WS 101. Historical analysis of women's movement as (r) evolution.

WS 308 Women's Studies Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

WS 310 Feminist Theory (3) Feminist theoretical approaches as applied to current personal, social and political issues.

WS 320 Women in United States History (3)
Research and interpret the contributions of women to the history of the United States. Re-vision history through a feminist perspective.

WS 373 Women-Identified Theory (3) Critically analyze lesbian studies, literature and theory from a feminist perspective.

WS 422 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

WS 448 Women's Studies Seminar (3)
Prerequisites: WS 101, WS 248, WS 310 and 10 semester credits in approved Women's Studies electives. Seniors or above. This course will provide the opportunity for students to pursue individual research projects with the intent to re-construct the representations of Woman.

WS 492 Internship (2-10) Nine semester credits in approved Women's Studies courses required. Supervised field practice on research relating to women's concerns and issues. Paper analyzing experience required. Repeatable, maximum 10 credits.

WS 508 Workshop (1-3) A variety of workshops on special topics within the discipline. Goals and objectives will emphasize the acquisition of general knowledge and skills in the discipline. Repeatable, under different subtitles.

WS 510 Feminist Theory (3) Feminist theoretical approaches as applied to current personal, social and political issues.

WS 513 Professional Renewal (1-3) Update skills and knowledge of professionals in the discipline. Goals and objectives will be specifically directed at individual professional enhancement rather than the acquisition of general discipline knowledge or methodologies. S/U or letter graded. Repeatable, under different subtitles.

WS 520 Women in United States History (3)
Research and interpret the contributions of women to the history of the United States. Re-vision history through a feminist perspective. Special assignments for graduate students.

WS 548 Women's Studies Seminar (3)
Prerequisites: WS 101, WS 248, WS 310. Seniors or above. This course will provide the opportunity for students to pursue individual research projects with the intent to re-construct the representations of women.

WS 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

WS 692 Internship (2-10) Knowledge of Women's Studies techniques and concerns required. Supervised field practice on research relating to Women's Studies concerns and issues. Graduate-quality paper analyzing experience required. Repeatable, maximum 10 credits.

ZOO - Zoology

ZOO 115 Human Biology (3) (2 lecture, 3 laboratory) The study of humans including evolution and genetics, basic anatomy and physiology and their place in the biological world. Credit not allowed for biological science majors. Fee required.

ZOO 245 Introduction to Human Anatomy Physiology (4) (3 lecture, 3 laboratory) Stress regulatory mechanisms that maintain normal body function and broad general biological principles as they apply to structure and function. Credit not given for both ZOO 245 and ZOO 350. Fee required.

ZOO 330 Ornithology (3) (2 lecture, 3 laboratory) Prerequisite: BIO 111. Study the general biology and behaviors of birds. Laboratory emphasis will be on field identification of birds. Field trip required. Fee required.

ZOO 331 General Entomology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Learn the biology of the principal orders of insects by collecting and classifying specimens. Agents and vectors of disease are stressed. Insect collection is required, see instructor. Fee required.

ZOO 332 Invertebrate Zoology (3) (2 lecture, 3 laboratory) Prerequisite: BIO 111. Investigate invertebrate phyla through a phylogenetic approach, stressing form, function and evolutionary relationships. Study examples of available groups in the laboratory. Insects and parasites not stressed. Fee required.

ZOO 333 General Parasitology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111 or ZOO 115. Study the symbiotic relationships of parasitism as exemplified by typical parasites of humans, domesticated and wild animals, stressing life cycles, pathogenesis, systematics and host-parasite relationships. Fee required.

ZOO 334 Mammalogy (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Study the functional biology, ecology and behavior of mammals. Laboratory stresses the identification and ecology of Colorado species. Field work required. Fee required.

ZOO 335 Survey of Fishes, Amphibians and Reptiles (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Investigate the biology of the cold-blooded vertebrates including their evolution, ecology and behavior. Laboratory stresses the identification and biology of Colorado species. Fee required.

ZOO 341 Human Anatomy (3) (2 lecture, 3 laboratory) Prerequisite: ZOO 115 or BIO 111. Study the organ systems of the human body, their structure and integration. Laboratory includes examination of mammalian organs and cadaver. Fee required.

ZOO 345 Comparative Vertebrate Morphogenesis (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111 or ZOO 115. Two semesters of introductory biology. A study of the comparative developmental processes of vertebrates as they relate to the structure of the adult organ systems. Developmental anatomy and adult morphology of the sharks through mammals are considered for laboratory study and dissection. Fee required.

ZOO 350 Human Physiology (4) (3 lecture, 3 laboratory) Prerequisites: ZOO 341 or ZOO 345 and CHEM 131 or CHEM 208. Examine in detail the functions of the organ systems of the human body, especially those involved with the maintenance of normal function. Fee required.

ZOO 355 Medical Pharmacology (3) (2 lecture, 3 laboratory) Prerequisite: ZOO 350. Make a detailed study of the principles underlying absorption, distribution, metabolism, excretion and interaction of drugs in humans. Calculation of drug dosages required.

ZOO 362 Principles of Animal Behavior (3) (2 lecture, 3 laboratory) Prerequisite: BIO 111. Study behaviors of animals with emphasis on non-human forms. The ethology and ecological significance of behaviors will be stressed. Field work is required. Fee required.

ZOO 448 Histology/Microtechnique (3) (1 lecture, 4 laboratory) Prerequisite: BIO 111. Study the basic mammalian tissues at the microscopic level and acquire the skills necessary for preparation of study and research materials. Fee required.

ZOO 533 General Parasitology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111 or ZOO 115. Study the symbiotic relationships of parasitism as exemplified by typical parasites of humans, domesticated and wild animals, stressing life cycles, pathogenesis, systematics and host-parasite relationships. Fee required.

ZOO 534 Mammalogy (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Study the functional biology, ecology and behaviors of mammals. Laboratory stresses the identification and ecology of Colorado species. Field work required. Fee required.

ZOO 535 Survey of Fishes, Amphibians and Reptiles (4) (3 lecture, 3 laboratory) Prerequisite: BIO 111. Investigation of the biology of the cold-blooded vertebrates including their evolution, ecology and behavior. Laboratory stresses the identification and biology of Colorado species. Fee required.

ZOO 542 Vertebrate Histology (4) (3 lecture, 3 laboratory) Prerequisite: ZOO 341 or ZOO 345. Intensive study of normal tissues and organs of vertebrates, particularly mammals.

ZOO 551 Mammalian Physiology I (4) (3 lecture, 3 laboratory) Prerequisites: ZOO 341 or ZOO 345 or equivalent; CHEM 208 or CHEM 481. Examine the cardiovascular and pulmonary systems in depth, integrating the functions of the nervous and endocrine systems. Fee required.

ZOO 552 Mammalian Physiology II (4) (3 lecture, 3 laboratory) Prerequisites: ZOO 551 or ZOO 350 or equivalent; CHEM 208 or CHEM 481. Consider in detail the digestive, muscular and excretory systems, particularly the integrative functions of these systems in maintenance of homeostasis. Fee required.

ZOO 560 Animal Ecology (4) (3 lecture, 3 laboratory) Prerequisite: BIO 460. Gain a comprehensive understanding of animal ecology. Animal population dynamics, behavioral ecology and quantitative methods for measurement and evaluation of animal systems. Fee required.

ZOO 595 Special Topics in Zoology (2) Study of any zoological topic at an advanced level. Repeatable up to one time, under different subtitles.

ZOO 622 Directed Studies (1-3) Individualized investigation under the direct supervision of a faculty member. (Minimum of 25 clock hours required per credit hour.) Repeatable, maximum concurrent enrollment is two times.

ZOO 636 Advanced Invertebrate Zoology (4) (3 lecture, 3 laboratory) Prerequisite: ZOO 332. Compare the classification, anatomy, physiology, morphogenesis and natural history of the invertebrates, exclusive of insects and most parasitic forms.

ZOO 645 Comparative Vertebrate Adaptations (4) (3 lecture, 3 laboratory) Prerequisites: ZOO 345 and ZOO 350. Make a detailed study of selected aspects of vertebrate anatomy, stressing function and adaptive significance of organ systems. Deliver one seminar on specialized topic.

ZOO 699 Thesis (1-6) Prerequisite: BIO 694. S/U graded. Repeatable, no limitations.

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- Terrance D. Urista** (1988), Chief, University Police — Colorado Law Enforcement Academy, FBI National Academy, A.A., Aims Community College
- Georgette Vigil** (1994), Director, Alumni Relations — B.A., University of Northern Colorado
- Sandra Weiser** (1983), Director, Student and Program Services — B.S., Grand Valley State College; M.A., Michigan State University
- Melanie Wilson** (1993), Director, Women's Resource Center — B.S., Northern Arizona University; M.S., Miami University; Ph.D., University of Northern Colorado
- Karie Yoshioka** (1995), Coordinator, Asian/Pacific American Student Services — B.A., University of California, Irvine; M.A., University of Northern Colorado
- James Zakely** (1983), Director, Academic Advising Center — A.A., Mesa Junior College; B.A., Colorado State University; M.S., Western Illinois University

Athletics

- Michael J. Breske** (1987), Assistant Football Coach, Defensive Coordinator — B.S., South Dakota State University; M.S., University of Northern Iowa
- Cathy Brett** (1996), Assistant Volleyball Coach and Administrative Assistant to the Director of Athletics — B.S., Eastern Kentucky University
- Shannon M. Courtney** (1991), Assistant Athletic Trainer — B.A., M.A., University of Northern Colorado
- O. Kay Dalton** (1989), Assistant Football Coach, Offensive Coordinator — B.A., M.A., Colorado State University
- Linda Delk** (1976), Head Volleyball Coach — B.S., Ohio State University; M.A., University of Northern Colorado
- Martin English** (1989), Assistant Football Coach and Athletic Department Strength Coach — B.S., M.A., University of Northern Colorado
- Jim Fallis** (1993), Director, Intercollegiate Athletics — B.A., Lake Superior State University; M.Ed., Northern Michigan University
- Rosemary Fri** (1961), Head Coach, Men's and Women's Tennis — B.S., University of California, Los Angeles; M.A., University of Northern Colorado
- Joe Glenn** (1987), Head Football Coach — B.A., M.A., University of South Dakota
- Scott A. Hall** (1988), Head Coach, Men and Women's Track and Head Cross Country Coach — B.S., St. Lawrence University; M.A., Idaho State University; Ed.D., University of Northern Colorado
- Robert Heiny** (1968), Athletic Faculty Representative — B.S., Colorado College; M.S., Ph.D., Colorado State University (G) (DR)
- Terry K. Hensley** (1990), Head Baseball Coach — B.A., M.A., University of Northern Colorado
- Nancy L. Hinrichs** (1988), Head Coach, Women's Swimming — B.S., M.S., Western Illinois University
- Dana Kusjanovic** (1994), Head Soccer Coach — B.A., University of Colorado, Boulder; M.A., University of Northern Colorado
- Jack Maughan** (1990), Head Wrestling Coach and Head Men's and Women's Golf Coach — B.A., North Dakota State University; M.A., University of Northern Colorado
- Kelly Miller** (1992), Academic Advisor — A.A., Colby Community College; B.A., University of Northern Colorado
- Denise O'Grady** (1994), Associate Director, Intercollegiate Athletics — B.S., University of Wyoming; M.S., University of Arizona
- Harvey W. Patton** (1995), Department Minority Recruiting Coordinator and Assistant Football Coach — B.S., University of Northern Colorado
- Ken Smith** (1992), Head Men's Basketball Coach — B.A., University of San Diego; M.S., Nova University

Faculty

(G) indicates Graduate faculty
(DR) Indicates Doctoral Research faculty

College of Arts and Sciences

- Osita G. Afoaku** (1993), Assistant Professor of Black Studies — B.A., University of Ife, Nigeria; M.A., Ph.D., Washington State University (G)
- Diane L. Albertini** (1992), Instructor of English — B.A., University of Wyoming; M.A., Colorado State University
- Mark B. Alcorn** (1986), Associate Professor of Psychology — B.A., Occidental College; M.A., Ph.D., University of Southern California (G)

- Linda S. Allen** (1992), Associate Professor of Speech Communication — B.A., Idaho State University; M.A., University of Wisconsin; Ph.D., University of Oregon (G)
- Dean Allison** (1993), Associate Professor of Mathematical Sciences — B.S., M.A., Ph.D., University of Missouri (G)
- David L. Anderson** (1976), Associate Professor of Journalism — B.J., University of Missouri; M.A., University of Massachusetts
- Michael D. Applegate** (1990), Instructor of Journalism and Mass Communications — B.A., M.A., University of Northern Colorado
- Patricia Arneson** (1990), Associate Professor of Speech Communication — B.A., St. Cloud State University; M.S., Southern Illinois University; Ph.D., Ohio University (G) (DR)
- David R. Aske** (1994), Assistant Professor of Economics — B.S., Mankato State University; Ph.D., University of Nebraska (G)
- Terry L. Ballman** (1992), Associate Professor of Hispanic Studies — B.A., M.A., California State University; Ph.D., University of Texas (G) (DR)
- William A. Barnard** (1972), Associate Professor of Psychology — B.A., M.A., Western Washington State College; Ph.D., Colorado State University (G) (DR)
- Theodore R. Bashore** (1991), Professor of Psychology — B.S., University of California; M.A., Ph.D., University of Colorado (G)
- Richard A. Blanke** (1979), Associate Professor of Philosophy — M.Ph., University of New York; M.A., Ph.D., City University of New York
- William L. Blubaugh** (1987), Professor of Mathematics — B.S., M.Ed., Kent State University; Ph.D., University of Colorado (G) (DR)
- John T. Bookman** (1966), Professor of Political Science — B.A., Ph.D., University of Cincinnati (G)
- William W. Bosch** (1970), Professor of Mathematics and Applied Statistics — B.S., M.S., North Dakota State University; Ph.D., University of Nebraska (G) (DR)
- John M. Brand, III** (1969), Professor of English — B.A., Austin College; M.Div., Austin Presbyterian Seminary; Ph.D., Texas Christian University (G)
- Thomas A. Bredehoff** (1994), Assistant Professor of English — B.A., Cornell University; M.A., Ph.D., Ohio State University (G)
- Susan P. Bromley** (1985), Associate Professor of Psychology — B.A., Mt. Holyoke College; M.A., Case Western Reserve University; Psy.D., University of Denver (G)
- Glenda J. Brown** (1963), Professor of French — B.A., University of Oregon; M.A., Ph.D., University of Illinois
- Robert Brunswig** (1993), Assistant Professor of Anthropology — B.A., Kansas State University; M.A., University of Pennsylvania (G)
- Peggy Buckwalter** (1996), Assistant Professor of Spanish — B.A., University of Florida; M.A., St. Louis University; Ph.D., University of Texas, Austin
- Warren R. Buss** (1967), Professor of Botany — B.S., Brigham Young University; Ph.D., Iowa State University (G) (DR)
- David Caldwell** (1983), Associate Professor of German — B.A., University of Texas; M.A., Ph.D., Ohio State University (G)
- Ronald S. Camp** (1968), Associate Professor of Journalism and Mass Communications — B.A., M.A., University of Missouri
- Genevieve Canales** (1995), Assistant Professor of Hispanic Studies — B.S., Incarnate Word College; M.S., Ph.D., Washington State University (G)
- Liliana Castro** (1994), Assistant Professor of Hispanic Studies — B.A., National University of Cuyo, Argentina; M.A., Colorado State University

- J. Wey Chen** (1988), Professor of Mathematics and Applied Statistics — M.A., Eastern Michigan University; M.S., Ph.D., Texas A&M University (G) (DR)
- Jennifer Clarke** (1989), Associate Professor of Biological Sciences — B.A., Miami University; M.A., University of Montana; Ph.D., Washington State University (G) (DR)
- Joan L. Clinefelter** (1995), Assistant Professor of History — B.A., Grinnell College; M.A., Ph.D., Indiana University
- Marshall S. Clough** (1975), Professor of History — B.A., Columbia University; M.A., Ph.D., Stanford University (G)
- L. Glen Cobb** (1969), Professor of Meteorology — B.A., Louisiana State University; M.S., Ph.D., Texas A&M University (G)
- David B. Cole** (1975), Professor of Geography — B.A., University of Texas; M.A., Syracuse University; Ph.D., University of Colorado (G) (DR)
- Charles O. Collins** (1970), Professor of Geography — B.A., M.A., University of Northern Colorado; Ph.D., University of Kansas (G) (DR)
- Jose E. Cordova** (1974), Associate Professor of Elementary Education and Reading — B.A., Chico State University; M.A., University of New Mexico
- Roberto H. Cordova** (1977), Professor of Hispanic Studies — B.A., Western State College; M.A., Ph.D., University of Colorado (G)
- Cathleen M. Cravlotto** (1995), Assistant Professor of Mathematical Sciences — B.A., Mills College; M.S., Washington State University; Ph.D., University of Colorado
- Elena Del Rio** (1996), Assistant Professor of English — B.A., Universidad Central de Barcelona, Spain; M.A., University of Arkansas
- Carolyn Ann Dennehy** (1994), Assistant Professor of Biological Sciences — B.A., North Texas State University; M.S.S.E., Ph.D., Texas Woman's University (G)
- Hedy Red Dexter** (1993), Assistant Professor of Sociology and Women's Studies — B.S., University of North Carolina; M.S., College of William and Mary; M.A., Humboldt State University; Ph.D., Florida International University (G)
- Ricardo Diaz** (1992), Associate Professor of Mathematics — B.A., Rice University; Ph.D., Princeton University (G)
- Barbara Findley Dickinson** (1989), Assistant Professor of English — B.S., M.S., Moorhead State University; Ph.D., University of Arizona (G)
- John L. Dietz** (1967), Professor of Geography — B.S., University of Nebraska; M.A., University of Northern Colorado; Ph.D., Syracuse University (G)
- Richard D. Dietz** (1969), Professor of Astronomy — B.S., California Institute of Technology; Ph.D., University of Colorado (G)
- James P. Doerner** (1994), Assistant Professor of Geography — B.S., Oklahoma State University; M.A., Ph.D., University of Denver (G)
- Aichun Dong** (1995), Assistant Professor of Chemistry and Biochemistry — M.D., Guangxi Medical University of China; Ph.D., Colorado State University (G)
- Matthew T. Downey** (1996), Professor of History and Director of the Social Science Teaching Center — B.A., M.A., Indiana University; M.A., Ph.D., Princeton University
- Becky J. Edgerton** (1993), Instructor of English — B.A., DePauw University; M.A., University of Massachusetts; Ed.D., University of Northern Colorado
- Ronald K. Edgerton** (1973), Professor of History — B.A., DePauw University; M.A., University of Massachusetts; Ph.D., University of Michigan (G)
- Donald D. Elliott** (1966), Professor of Mathematics and Applied Statistics — B.S. in Chem., B.S. in Bus., M.A., Ph.D., University of Colorado
- Marcus Embry** (1995), Assistant Professor of English — B.A., Duke University
- Kathleen Y. Ensz** (1970), Professor of French — B.A., Pomona College; M.A., University of California, Berkeley; Ph.D., Stanford University (G)
- D. Andre Erasmus** (1991), Associate Professor of Meteorology — B.S., M.S., University of Cape Town, South Africa; Ph.D., University of Hawaii (G)
- Willard L. Fadner** (1972), Professor of Physics — B.S., Purdue University; M.S., University of Wisconsin; Ph.D., University of Colorado (G)
- Priscilla Falcon** (1995), Associate Professor of Hispanic Studies — B.A., Adams State College; M.A., Ph.D., University of Denver (G)
- Jeff D. Farmer** (1993), Associate Professor of Mathematics — B.S., Texas Christian University; M.S., Ph.D., Texas A&M University (G) (DR)
- Sherilyn M. Ferguson** (1995), Assistant Professor of Speech Communication — B.S., M.A., University of Nebraska; Ph.D., University of Denver (G)
- Arturo Fernandez-Gilbert** (1996), Assistant Professor of Hispanic Studies — B.A., M.A., Universidad Complutense de Madrid, Spain
- Clark L. Fields** (1964), Professor of Chemistry — B.A., Pasadena College; M.S., Ph.D., Iowa State University (G) (DR)
- Fritz Fischer** (1995), Assistant Professor of History — B.A., M.A., Stanford University; Ph.D., Northwestern University (G)
- Anita Fleming-Rife** (1995), Assistant Professor of Journalism and Mass Communications — B.A., M.A., University of Northern Colorado
- John W. Fox** (1977), Professor of Sociology — B.S., Michigan State University; M.A., Ph.D., Western Michigan University (G) (DR)
- Jennifer A. Frost** (1995), Assistant Professor of History — B.A., University of California; M.A., University of Wisconsin
- Cynthia S. Galovich** (1989), Associate Professor of Physics — B.S., M.S., Ph.D., Stanford University (G)
- John K. Gapter** (1963), Professor of Botany — B.S., M.S., Ph.D., Colorado State University
- Catherine S. Gardiner** (1995), Assistant Professor of Biological Sciences — B.S., Michigan State University; M.S., Southern Illinois University; Ph.D., Oregon State University
- April L. Gardner** (1988), Associate Professor of Biology — B.S., Centre College of Kentucky; M.S., Ph.D., Purdue University (G) (DR)
- Lynn C. Gelger** (1994), Assistant Professor of Chemistry — B.S., Ohio State University; Ph.D., Northwestern University
- Hermon H. George, Jr.** (1985), Professor of Black Studies — B.A., Wilkes College; M.A., Middlebury College; Ph.D., University of California, Irvine
- David M. Gilliam** (1993), Associate Professor of Psychology — B.S., Emory University; M.A., Ph.D., University of Colorado (G) (DR)
- Emily Golson** (1993), Associate Professor of English — B.A., M.A., University of California; M.A., Ph.D., Brandeis University (G)
- Ester Gimbernat de Gonzalez** (1983), Professor of Hispanic Studies — B.A., Profesorado Sarmiento, Argentina; M.A., Ph.D., Johns Hopkins University (G) (DR)
- Patricia E. Graham** (1988), Assistant Professor of Economics — B.A., University of Denver; M.S., Ph.D., Colorado State University (G)
- Carl E. Granrud** (1994), Associate Professor of Psychology — B.A., Luther College; Ph.D., University of Minnesota
- Richard Grassl** (1991), Professor of Mathematics — B.A., Santa Clara University; M.A., University of Oregon; Ph.D., University of New Mexico (G) (DR)
- John W. Green** (1985), Professor of Economics — B.S., South Dakota State University; M.S., Oklahoma State University; M.A., Ph.D., University of Pennsylvania (G)
- Jay K. Hackett** (1973), Professor of Earth Sciences — B.S., University of Nebraska; M.N.S., Arizona State University; Ed.D., University of Northern Colorado (G) (DR)
- William E. Harmon** (1972), Professor of Botany — B.A., M.A., Ph.D., University of Missouri
- Henry W. Heikkinen** (1987), Professor of Chemistry — B.E., Yale University; M.A., Columbia University; Ph.D., University of Maryland (G) (DR)
- Margaret E. Heimbrook** (1974), Professor of Biological Sciences — B.S., Muskingum College; M.A., Lehigh University; M.S., University of Wisconsin; Ph.D., Colorado State University (G) (DR)
- Robert L. Heiny** (1968), Professor of Mathematics and Applied Statistics — B.S., Colorado College; M.S., Ph.D., Colorado State University (G) (DR)
- Pamela G. Hewitt** (1982), Professor of Sociology — B.A., M.A., Ph.D., University of New Hampshire (G)
- Michael J. Higgins** (1973), Professor of Anthropology — B.A., University of Northern Colorado; M.A., Ph.D., University of Illinois (G) (DR)
- Elizabeth Jane Wall Hinds** (1992), Associate Professor of English — B.A., University of Oklahoma; M.A., Ph.D., University of Tulsa (G)
- Paul F. Hodapp** (1972), Professor of Philosophy — B.A., Western Michigan University; Ph.D., Washington University; J.D., University of Denver (G)
- Mary C. Hoff** (1990), Instructor of Hispanic Studies — B.A., University of New Mexico; M.A., University of Northern Colorado
- Kenneth D. Hopkins** (1969), Associate Professor of Geology — B.A., University of Minnesota; M.S., Ph.D., University of Washington (G)
- Jason G. Horn** (1990), Instructor of English — B.A., Fort Lewis College; M.A., Idaho State University; Ph.D., University of Colorado
- William H. Hoyt** (1981), Professor of Oceanography — B.A., Middlebury College; M.S., State University of New York; Ph.D., University of Delaware (G) (DR)
- Joonok Huh** (1988), Associate Professor of English — B.A., Ewha Women's University of Seoul; M.A., Ph.D., Indiana University (G)
- Richard M. Hyslop** (1984), Professor of Chemistry — B.S., Indiana State University; Ph.D., University of Texas (G)
- Charles H. Ingold** (1983), Associate Professor of Mass Communications — B.A., University of Akron; M.A., Colorado State University; Ph.D., University of Colorado (G)
- Peter C. Isaacson** (1983), Associate Professor of Mathematics and Applied Statistics — B.A., Concordia College; M.A., University of Northern Colorado; M.S., Ph.D., Colorado State University
- Marlynn R. James** (1966), Professor of Chemistry — B.S., M.S., Brigham Young University; Ph.D., University of Utah (G)
- Karen M. Jennison** (1972), Professor of Sociology — B.A., University of Kansas; M.A., Washington University; Ph.D., Washington State University (G)
- Loretta L. Jones** (1992), Associate Professor of Chemistry — B.S., Loyola University; M.S., University of Chicago; D.A., Ph.D., University of Illinois (G) (DR)
- George H. Junne, Jr.** (1992), Assistant Professor of Black Studies — B.F.A., M.A., Ph.D., University of Michigan
- Kelfala M. Kallon** (1993), Associate Professor of Economics — B.A., Methodist College; Ph.D., University of Virginia (G)
- Anthonia C. Kalu** (1989), Associate Professor of Black Studies — B.A., M.A., Ph.D., University of Wisconsin (G)
- Kelechi Kalu** (1995), Assistant Professor of Political Science — B.A., North Texas State University; M.A., University of Dayton

- Nancy J. Karlin** (1990), Associate Professor of Psychology — B.A., Evangel College; M.S., Fort Hays State University; Ph.D., Colorado State University (G)
- Idahlynn Karre** (1970), Professor of Speech Communication — B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G) (DR)
- Peter Kastner-Wells** (1990), Associate Professor of German — B.A., University of Bonn, West Germany; M.A., University of Arizona; Ph.D., University of Texas, Austin (G)
- Edward A. Kearns** (1966), Professor of English — B.A., M.A., University of Arizona
- James A. Keaten** (1991), Assistant Professor of Speech Communication — B.A., Montclair State College; M.A., Ph.D., Pennsylvania State University (G)
- Rita B. Kiefer** (1970), Professor of English and Women's Studies — B.A., Notre Dame College; M.A., University of Notre Dame
- Susan E. Kirkpatrick** (1994), Assistant Professor of Political Science — B.A., University of Michigan; M.A., Harvard University; Ph.D., Colorado State University (G)
- Alexander W. Knott** (1968), Associate Professor of History — B.A., M.A., Ph.D., University of Colorado
- Roger A. Kovar** (1970), Professor of Chemistry — B.A., Doane College; Ph.D., University of Wyoming
- Carlos Leal** (1970), Associate Professor of Hispanic Studies — B.A., Ed.S., University of Northern Colorado
- Mark Lechlitter** (1989), Instructor of English — B.A., M.A., University of Wyoming
- Lawrence Mark Lesser** (1994), Assistant Professor of Mathematics Education — B.A., Rice University; M.A., Ph.D., University of Texas (G)
- Steven C. Leth** (1988), Professor of Mathematics — B.A., University of Colorado; M.S., Stanford University; Ph.D., University of Colorado (G) (DR)
- Marie L. Livingston** (1985), Professor of Economics — B.S., Utah State University; M.S., University of Arizona; Ph.D., Colorado State University (G) (DR)
- John E. Loftis, III** (1970), Professor of English — B.A., University of the South; M.A., Ph.D., Emory University (G)
- María E. Lopez** (1972), Professor of Hispanic Studies — B.A., University of Northern Colorado; M.A., Ph.D., University of Iowa (G)
- Stan Luger** (1990), Associate Professor of Political Science — B.A., State University of New York; M.A., University of Toronto; Ph.D., City University of New York (G)
- Herman D. Lujan** (1991), Distinguished Professor and President Emeritus — B.A., St. Mary's College of California; M.A., University of California, Berkeley; Ph.D., University of Idaho (G)
- Stephen P. Mackessy** (1994), Professor of Biological Sciences — B.A., M.A., University of California; Ph.D., Washington State University (G) (DR)
- Kendall E. Mallory** (1991), Associate Professor of Physics — B.A., Point Loma College; M.S., California State University; Ph.D., University of California (G)
- James P. Marshall** (1973), Associate Professor of Sociology — B.A., University of Southern Colorado; M.A., University of Northern Colorado; Ph.D., University of Colorado (G)
- Robert Mayes** (1993), Associate Professor of Mathematics Education — B.S., M.S., Emporia State University; Ph.D., Kansas State University (G) (DR)
- Steve J. Mazurana** (1969), Professor of Political Science — B.A., University of Miami; M.A., Indiana University (G)
- Sally McBeth** (1990), Associate Professor of Multicultural Studies — B.A., Michigan State University; M.A., Ph.D., Washington State University (G)
- Bruce A. McDaniel** (1992), Assistant Professor of Economics — B.S., Manchester College; M.A., Ball State University; Ph.D., Colorado State University (G)
- Sheryl L. McGlamery** (1992), Assistant Professor of Elementary Science Education — B.A., Jacksonville University; M.Ed., University of North Florida; M.S., Ph.D., Florida State University (G) (DR)
- Charles R. McNeerney** (1969), Professor of Mathematics and Applied Statistics — B.A., M.A., University of Northern Colorado; Ph.D., Ohio State University (G) (DR)
- Marcus K. Mellahn** (1968), Professor of Chemistry — B.S., Lakeland College; Ph.D., Arizona State University
- Dan Miller** (1993), Assistant Professor of English — B.A., University of Colorado; Ph.D., University of Iowa (G)
- John C. Moore** (1991), Associate Professor of Zoology — B.A., University of California; M.S., Michigan State University; Ph.D., Colorado State University (G) (DR)
- Melanie Moore** (1994), Assistant Professor of Sociology — B.A., Pennsylvania State University; M.A., University of Georgia; Ph.D., University of Washington (G)
- Grant L. Morris** (1972), Professor of Psychology — B.A., University of South Florida; M.S., Ph.D., Washington State University (G)
- David Musick** (1980), Professor of Sociology — B.A., California State University, San Bernardino; M.A., Ph.D., University of California, Riverside (G)
- William D. Nesse** (1977), Professor of Geology — B.S., Washington State University; Ph.D., University of Colorado (G)
- Jodie Dawn Novak** (1996), Assistant Professor of Mathematics — B.A., Hendrix College; M.A., Ph.D., Oklahoma State University
- Daniel F. O'Connor** (1974), Assistant Professor of Sociology — B.A., Northern State College; M.A., Creighton University; Ph.D., Oklahoma State University
- Charles E. Olmsted, III** (1978), Professor of Environmental Studies — B.A., Earlham College; M.A., University of Oklahoma; Ph.D., University of Colorado (G) (DR)
- Richard K. Ormrod** (1976), Professor of Geography — B.S., M.A., Arizona State University; Ph.D., Pennsylvania State University (G) (DR)
- Norman L. Peercy** (1969), Professor of English — B.S.E., M.A., University of Northern Colorado; M.Ph., Ph.D., University of Kansas (G)
- Charles S.L. Poston** (1967), Professor of Psychology — B.A., Lynchburg College; M.S., Auburn University; Ph.D., Washington State University (G)
- Stephen T. Powers** (1966), Professor of History — B.S., U.S. Naval Academy; M.A., Rice University; Ph.D., University of Notre Dame (G)
- Joan A. Pratt** (1987), Assistant Professor of History — B.A., Southeast Missouri State University; M.A., Ph.D., University of Missouri (G)
- David L. Pringle** (1968), Professor of Chemistry — B.S., Wayne State University; M.S., Ph.D., Iowa State University (G) (DR)
- Philip L. Reichel** (1983), Professor of Sociology — B.S., Nebraska Wesleyan University; M.A., Ph.D., Kansas State University (G)
- Robert J. Reinsvold** (1989), Associate Professor of Biological Sciences — B.A., Humboldt State University; M.S., Colorado State University; Ph.D., Purdue University (G)
- Paul D. Retzlaff** (1989), Professor of Psychology — B.A., University of Northern Colorado; M.A., Ph.D., University of Montana (G) (DR)
- Sharron Riesberg** (1993), Instructor of English — B.A., M.A., University of Northern Colorado
- Sinal Robins** (1991), Associate Professor of Mathematics — B.A., M.A., Ph.D., University of California, Los Angeles (G)
- Alfonso Rodriguez** (1978), Professor of Hispanic Studies — B.A., M.A., Texas A&I University; Ph.D., University of Iowa (G) (DR)
- Teresa Bolet Rodriguez** (1978), Professor of Hispanic Studies — B.A., M.A., Texas A&I University; Ph.D., University of Iowa (G) (DR)
- Barry Rothaus** (1966), Professor of History — B.A., Hunter College; M.S., Ph.D., University of Wisconsin (G)
- Gail S. Rowe** (1969), Professor of History — B.A., Fresno State College; M.A., Ph.D., Stanford University (G) (DR)
- Tomas N. Santos** (1973), Professor of English — B.A., M.A., Ph.D., University of Iowa (G)
- Gerald W. Saunders** (1995), Assistant Professor of Biological Sciences — B.A., University of Northern Colorado; M.S., University of Idaho; Ph.D., University of Nebraska (G) (DR)
- Lora D. Schlewitt** (1995), Assistant Professor of Psychology — B.A., Eastern Illinois University; M.A., University of Louisville
- Charles "Gil" Schmidt** (1991), Professor of Geography — B.A., Sonoma State University; M.A., University of Illinois; Ph.D., University of Washington (G)
- James O. Schreck** (1966), Professor of Chemistry — B.A., University of St. Thomas; M.S., Ph.D., Texas A&M University (G) (DR)
- Richard W. Schwenz** (1984), Professor of Chemistry — B.A., University of Colorado; Ph.D., Ohio State University (G) (DR)
- Steven L. Scott** (1968), Professor of Geography — B.A., Kearney State College; M.A., Western Illinois University; D.A., University of Northern Colorado (G) (DR)
- Terry A. Scott** (1985), Associate Professor of Mathematics and Applied Statistics — B.S., Iowa State University; M.S., Kansas State University; Ph.D., University of Wyoming (G)
- Tracey Sedinger** (1995), Assistant Professor of English — B.A., Chatham College; M.A., Ph.D., State University of New York (G)
- Eugene P. Sheehan** (1987), Professor of Psychology — B.A., University of Dublin; M.S., Queen's University of Belfast; M.S., University of Dublin; Ph.D., University of California, Santa Cruz (G) (DR)
- K. Lee Shropshire** (1965), Professor of Geology — B.A., Miami University; Ph.D., University of Colorado (G)
- Nancy Spatz** (1991), Associate Professor of History — B.A., Northwestern University; M.A., Ph.D., Cornell University (G)
- Jacqueline B. Stanfield** (1991), Associate Professor of Sociology — B.A., University of Texas, Arlington; M.A., Ph.D., Colorado State University (G)
- Ruwang Sung** (1992), Assistant Professor of Physics — B.S., Wuhan University, China; M.S., Ph.D., New York University
- Igor Szczyrba** (1986), Professor of Mathematics and Applied Statistics — M.S., Ph.D., University of Warsaw (G) (DR)
- Jack Temkin** (1983), Associate Professor of Philosophy — B.A., Brooklyn College; Ph.D., University of Wisconsin
- Richard G. Trahan** (1974), Professor of Sociology — B.A., M.A., San Jose State University; Ph.D., University of Wisconsin
- Thomas K. Trelogan** (1976), Assistant Professor of Philosophy — B.S., Northwestern University
- Leo Ben Varner** (1969), Associate Professor of English — B.S., University of California; M.A., San Francisco State University; Ph.D., University of Illinois
- John A. Vonk** (1972), Professor of Sociology — B.A., M.A., Ph.D., Western Michigan University
- Robert A. Walch** (1988), Associate Professor of Physics — B.S., Florida Institute of Technology; M.A., Indiana University; M.S., Ph.D., Ohio State University (G)
- James A. Wanner** (1970), Professor of Anthropology — B.S., M.S., University of Wisconsin; Ph.D., University of Colorado
- Marilyn C. Welsh** (1992), Associate Professor of Psychology — B.A., M.A., Ph.D., University of California (G)

- Michael Welsh** (1990), Associate Professor of History — B.A., M.A., University of Dayton; Ph.D., University of New Mexico (G)
- Courtney W. Willis** (1993), Associate Professor of Physics — B.A., University of Northern Colorado; M.S.T., University of Wisconsin; Ph.D., University of Wyoming (G)
- Sharon R. Wilson** (1970), Professor of English — B.A., University of Northern Colorado; M.A., Purdue University; Ph.D., University of Wisconsin (G) (DR)
- William Woodward** (1990), Instructor of Journalism and Mass Communications — A.A., Arapahoe Community College; M.A., University of Northern Colorado
- Lloyd D. Worley** (1987), Professor of English — B.A., M.A., University of Southwestern Louisiana; Ph.D., Southern Illinois University (G)
- Janet E. Worrall** (1974), Professor of History — B.A., Hamline University; M.A., Ph.D., Indiana University (G)
- Judith Zumwalt** (1993), Instructor of English — B.S., Southwest Missouri State College; M.A., University of Missouri
- ### College of Business Administration
- Joe F. Alexander** (1990), Associate Professor of Marketing — B.B.A., Harding University; M.B.A., D.B.A., Memphis State University (G) (DR)
- Garth H. Allen** (1973), Associate Professor of Finance — B.B.A., J.D., University of Iowa (G)
- Paul E. Bohrer** (1971), Professor of Accounting — B.S., M.S., University of North Dakota; C.P.A.
- John M. Cilnebell** (1987), Associate Professor of Finance — B.S., College of the Ozarks; M.B.A., University of Arkansas; D.B.A., Southern Illinois University (G)
- Sharon K. Cilnebell** (1987), Professor of Management — B.S., College of the Ozarks; M.B.A., University of Arkansas; D.B.A., Southern Illinois University (G)
- James W. Clinton** (1980), Professor of Management — B.S., Columbia University; M.B.A., University of Washington; Ph.D., St. Louis University (G)
- Bill D. Cox** (1988), Associate Professor of Accounting — B.B.A., M.B.A., Baylor University; Ph.D., University of Missouri; C.P.A. (G)
- Charmayne B. Cullom** (1987), Professor of Computer Information Systems — B.S., B.A., M.B.A., Ph.D., University of Arkansas (G)
- Joseph G. Donelan** (1989), Associate Professor of Accounting — B.S., Bradley University; M.B.A., Southern Illinois University; Ph.D., St. Louis University; C.P.A. (G)
- Glen Droegemueller** (1979), Associate Professor of Finance — B.S., University of Northern Colorado; J.D., University of Colorado
- William L. Duff, Jr.** (1969), Dean Emeritus of College of Business Administration and Professor of Computer Information Systems — B.A., San Francisco State University; M.S.Sc., University of Stockholm; Ph.D., University of California, Los Angeles
- John E. Eisea** (1978), Professor of Accounting — B.A., M.A., Ph.D., University of Northern Colorado; C.P.A. (G)
- Robert D. Elton** (1973), Assistant Professor of Accounting — B.S., M.A., University of South Dakota; C.P.A.
- Karen L. Fowler** (1989), Professor of Management — B.S., B.A., University of Southern Colorado; M.B.A., University of Wyoming; Ph.D., University of Nebraska (G)
- R. John Freese** (1975), Associate Professor of Computer Information Systems — B.S., Massachusetts Institute of Technology; Ph.D., University of Northern Colorado
- Theresa K. Gutierrez** (1991), Assistant Professor of Accounting — B.A., New Mexico Highlands University; M.S., Texas Tech University; Ph.D., University of North Texas; C.P.A. (G)
- Robert C. Harris** (1969), Associate Professor of Marketing — B.A., M.A., University of Northern Iowa
- D. Lynn Hoffman** (1975), Professor of Management — B.S., Cornell College; Ph.D., University of Iowa (G) (DR)
- Nathan D. Kilng** (1991), Associate Professor of Marketing — B.B.A., M.B.A., Ph.D., University of Texas, Austin
- Leopold Korins** (1996), Monfort Executive Professor — B.S., Wharton School, University of Pennsylvania, Philadelphia
- Greg Kuhlmeier** (1996), Assistant Professor of Finance — B.S., Western Illinois University; M.B.A., Ph.D., University of Tennessee (G)
- Jay M. Lightfoot** (1991), Associate Professor of Computer Information Systems — B.S., East Texas State University; M.B.A., Ph.D., University of Colorado (G)
- Martha S. Lilly** (1988), Associate Professor of Accounting — B.S., University of Oklahoma; B.F.A., M.B.A., Boise State University; Ph.D., Texas Tech University; C.P.A. (G)
- Herman D. Lujan** (1991), Distinguished Professor and President Emeritus — B.A., St. Mary's College of California; M.A., University of California, Berkeley; Ph.D., University of Idaho (G)
- Robert M. Lynch** (1973), Professor of Computer Information Systems — B.A., State University of New York; Ph.D., University of Northern Colorado (G)
- Rutilio Martinez** (1993), Assistant Professor of Finance — B.A., Universidad Iberoamericana; M.S., Colorado State University; Ph.D., Vanderbilt University
- Christine A. McClatchey** (1996), Assistant Professor of Finance — B.S., M.S., Ph.D., University of Nebraska (G)
- Allen W. McConnell** (1968), Professor of Accounting — B.S., M.S., University of North Dakota; C.P.A.
- Denny E. McCorkle** (1989), Associate Professor of Marketing — B.B.A., Southern Arkansas University; M.B.A., Louisiana Tech University; D.B.A., Memphis State University (G)
- Junius W. Peake** (1992), Monfort Distinguished Professor of Finance
- Ronald O. Reed** (1988), Professor of Accounting — B.S., M.A.S., University of Illinois; Ph.D., Texas Tech University; C.P.A. (G)
- Mitchel E. Rhoads** (1995), Colorado Business Executive Professor — B.S., Tri-State University
- Daniel James Rowley** (1983), Professor of Management — B.A., University of Colorado; M.P.A., University of Denver; Ph.D., University of Colorado (G)
- Tod A. Sedbrook** (1989), Associate Professor of Computer Information Systems — B.S., M.S., Colorado State University; M.B.A., University of Wyoming; Ph.D., University of Colorado (G)
- Gerald Shadwick** (1994), Monfort Executive Professor — B.S., Kansas State University; J.D., George Washington University
- John R. Stewart** (1974), Associate Professor of Accounting — B.S., Kansas State Teachers College; M.A., Ph.D., University of Northern Colorado; C.P.A.
- Steve Teglovic, Jr.** (1968), Professor of Computer Information Systems — B.S., M.B.A., University of Denver; Ph.D., University of Northern Colorado; CDE (G) (DR)
- R. Viswanathan** (1985), Associate Professor of Marketing — B.S., New Mexico State University; M.A., Western New Mexico University; Ph.D., Texas A&M University (G)
- Tracy D. Baldo** (1991), Associate Professor of Counseling Psychology — B.S., M.S. Ed., Ph.D., Purdue University (G) (DR)
- Achilles N. Bardos** (1990), Associate Professor of School Psychology — B.S., Wright State University; M.A., Ball State University; Ph.D., Ohio State University (G) (DR)
- Bruce G. Barnett** (1990), Professor of Educational Leadership and Policy Studies — B.A., Arizona State University; M.A., Pepperdine University; Ph.D., University of California, Santa Barbara (G) (DR)
- Diane Bassett** (1991), Associate Professor of Special Education — B.S., University of Colorado, Boulder; M.A., University of Northern Colorado; Ph.D., University of New Mexico (G)
- Jeffrey W. Bauer** (1990), Associate Professor of Educational Technology — B.A., University of Wyoming; M.B.A., California State University, San Bernardino; Ph.D., University of Wyoming (G)
- Judith H. Berg** (1993), Assistant Professor of Educational Leadership and Policy Studies — B.A., M.A., New York University; Ed.D., Boston University (G)
- George T. Betts** (1979), Professor of Special Education — B.S., Phillips University; M.A., Ed.D., University of Northern Colorado (G) (DR)
- Marcia L. Broughton** (1970), Assistant Professor of Elementary Education and Reading — B.A., St. Olaf College; M.A., Washington State University
- Teresa D. Bunsen** (1989), Associate Professor of Special Education — B.S., Angelo State University; M.Ed., Ph.D., University of North Texas (G) (DR)
- Arnold H. Burron** (1969), Professor of Elementary Education and Reading — B.S., Concordia Teachers College; M.A., Ed.D., Ball State University (G)
- Edward P. Caffarella** (1990), Professor of Educational Technology — B.S., Springfield College; M.Ed., University of Massachusetts; Ph.D., Michigan State University (G) (DR)
- Rosemary S. Caffarella** (1990), Professor of Educational Leadership and Policy Studies — B.A., Springfield College; M.A., Ed.S., Ph.D., Michigan State University (G) (DR)
- Kyle R. Carter** (1976), Professor of Educational Psychology — B.A., Mercer University; M.A., Ph.D., University of Georgia (G) (DR)
- Antonio L. Carvajal** (1971), Professor of Special Education — B.S., Sul Ross State University; M.S., East Texas State University; Ed.D., University of Northern Colorado (G)
- Kathryn F. Cochran** (1984), Associate Professor of Educational Psychology — B.S., M.A., Northern Arizona University; Ph.D., Purdue University (G) (DR)
- John B. Cooney** (1980), Professor of Educational Psychology and Affiliate Associate Professor of Applied Statistics — B.S., Sam Houston State University; M.S., Ph.D., Texas A&M University (G) (DR)
- Ellis P. Copeland** (1975), Professor of School Psychology — B.A., Ph.D., University of Texas, Austin (G) (DR)
- Karen S. Crabtree** (1986), Associate Professor of Elementary Education and Reading — B.A., M.A., Washington University; Ed.D., Oklahoma State University (G)
- Rik Carl D'Amato** (1990), Professor of School Psychology — B.S.Ed., University of Wisconsin, Whitewater; M.S., University of Wisconsin, Madison; Ph.D., Ball State University (G) (DR)
- Sarah J. DeHaas** (1991), Associate Professor of Special Education — B.S., Slippery Rock State College; M.Ed., Providence College; Ph.D., Pennsylvania State University (G)
- James A. DeKruiter** (1974), Professor of Special Education — B.A., Calvin College; M.A., Western Michigan University; Ph.D., University of Arizona (G) (DR)
- ### College of Education
- Clifford D. Baker** (1974), Professor of Special Education — B.S., Central Missouri State University; M.S., St. Cloud State University; Ed.D., University of Northern Colorado (G)

- Roger G. Eldridge** (1989), Professor of Elementary Education and Reading — B.A., University of Massachusetts, Amherst; Ph.D., University of Wisconsin, Madison (G) (DR)
- Kay A. Ferrell** (1992), Professor of Special Education — B.A., George Washington University; M.A., Columbia University; Ph.D., University of Pittsburgh (G) (DR)
- Gary Fertig** (1995), Assistant Professor of Elementary Education — B.A., M.A., Ph.D., University of Wyoming (G)
- Thomas J. Gavin** (1984), Assistant Professor of Educational Leadership and Policy Studies — B.S., Wisconsin State University, River Falls; M.A., Ball State University; Ph.D., University of Oregon
- Michael J. Gimmestad** (1977), Professor of Counseling Psychology and Teacher Education — B.A., St. Olaf College; M.S., Indiana University; Ph.D., University of Minnesota (G) (DR)
- B. Robert Gonzales** (1977), Professor of Special Education — B.S., University of New Mexico; M.S., Gallaudet College; Ed.D., University of Tennessee (G) (DR)
- David M. Gonzalez** (1988), Associate Professor of Counseling Psychology — B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G) (DR)
- Patricia J. Hagerty** (1989), Associate Professor of Elementary Education and Reading — B.A., California State University at Fullerton; M.A., Ed.D., University of Colorado, Boulder (G) (DR)
- John J. Halcon** (1988), Associate Professor of Foundations of Education — B.A., M.Ed., Loyola Marymount University; Ph.D., University of California, Santa Barbara (G) (DR)
- Gene E. Hall** (1988), Professor of Educational Leadership and Policy Studies — B.S., Castleton State College; M.S., Ph.D., Syracuse University (G) (DR)
- Janette Hill** (1996), Assistant Professor of Educational Technology — B.A., University of North Florida; M.S., Ph.D., Florida State University
- Allen Huang** (1978), Professor of Special Education — B.A., National Chengchi University; M.A., Eastern Kentucky University; Ed.D., University of Alabama (G) (DR)
- Lewis B. Jackson** (1989), Associate Professor of Special Education — B.A., University of North Carolina; M.S., Ed.D., Johns Hopkins University (G) (DR)
- Michael L. Jacobs** (1970), Professor of Foundations of Education — B.A., M.A., Ed.D., University of Rochester
- Merma Jacobsen** (1987), Director of the Tointon Institute for Educational Change — B.S., Montana State University; M.A., University of Northern Colorado
- David L. Kappan** (1973), Associate Professor of Special Education — B.S., Northern State College; M.A., Western Michigan University (G) (DR)
- Richard A. King** (1989), Professor of Educational Leadership and Policy Studies — B.A., M.S., State University of New York, Oswego; Ed.S., Ph.D., State University of New York, Buffalo (G) (DR)
- Bernard C. Kinnick** (1966), Professor of College Student Personnel Administration — B.A., St. John's University; M.A., University of North Dakota; Ed.D., Auburn University (G) (DR)
- J. Melvin Lane** (1967), Professor of Special Education — B.A., State College of Iowa; M.A., Ed.D., University of Northern Colorado
- Fong-Yun Lee** (1990), Assistant Professor of Elementary Education and Reading — Diploma, Shih Chien College, Republic of China; M.Ed., University of Pittsburgh; Ph.D., Arizona State University (G)
- Patricia A. Lee** (1990), Associate Professor of Special Education — B.A., M.S., Ed.D., University of Kansas (G) (DR)
- Randy J. Lennon** (1982), Professor of Educational Psychology — B.A., University of California, Berkeley; M.A., Ph.D., Arizona State University (G) (DR)
- Carol Y. Love** (1995), Assistant Professor of Special Education — B.A., Eastern Washington University; M.A., Western Michigan University; Ph.D., University of Texas, Austin (G)
- John L. Luckner** (1991), Professor of Special Education — B.S., M.Ed., Trenton State College; Ed.D., University of Northern Colorado (G) (DR)
- Douglas A. MacIsaac** (1989), Assistant Professor of Elementary and Reading — B.A., Ed.S., Michigan State University
- Teresa M. McDevitt** (1985), Professor of Educational Psychology and Affiliate Assistant Professor of Applied Statistics — B.A., University of California; M.A., Ed.S., Ph.D., Stanford University (G) (DR)
- Robert P. Merz** (1972), Assistant Professor of College Student Personnel Administration — B.A., St. Thomas College; STB, Catholic University of America; M.A., St. Thomas College; M.Ed., Colorado State University; Ed.D., University of Northern Colorado
- Madeline Millan** (1993), Assistant Professor of Elementary and Reading — B.S., Florida International University; M.A., California State University, Los Angeles; Ed.D., Teachers College, Columbia University (G)
- D. William Muir** (1993), Assistant Professor of Special Education — B.A., M.A., University of Northern Colorado
- Jo-Ann M. Mullen** (1977), Professor of Elementary Education and Reading — B.S., Syracuse University; Ed.M., Ed.D., Boston University (G) (DR)
- Daniel J. Mundfrom** (1995), Assistant Professor of Applied Statistics and Research Methods — B.S., M.S., University of North Dakota; Ph.D., Iowa State University (G) (DR)
- Francie R. Murry** (1991), Assistant Professor of Special Education — B.A., M.Ed., Central Washington University; Ph.D., University of Virginia (G) (DR)
- Richard L. Needham** (1982), Associate Professor of Elementary Education and Reading — B.S., Oregon State University; M.Ed., Ed.D., University of Virginia (G) (DR)
- M. Sean O'Halloran** (1990), Associate Professor of Counseling Psychology — B.A., University of Illinois, Champaign-Urbana; M.A., Ph.D., University of California, Santa Barbara (G) (DR)
- Stuart N. Omdal** (1994), Assistant Professor of Special Education — B.A., Seattle Pacific University; M.A., Ph.D., University of Connecticut (G)
- Jeanne E. Ormrod** (1976), Professor of Educational Psychology — B.A., Brown University; M.S., Ph.D., Pennsylvania State University (G) (DR)
- Wendell A. Osorno** (1974), Professor of Counseling Psychology — B.A., Nebraska State College; M.A., University of Northern Colorado; Ph.D., Iowa State University (G)
- Kay Perschitte** (1994), Assistant Professor of Educational Technology — B.A., University of Northern Colorado; M.Ed., Colorado State University; Ph.D., University of Northern Colorado (G)
- Bobbie J. Poole** (1996), Assistant Professor of Elementary and Reading — B.S., Butler University; M.A., Ed.D., University of Northern Colorado
- Deborah A. Powell** (1984), Associate Professor of Elementary Education and Reading — B.S., Indiana University; M.S., Purdue University; Ed.D., Indiana University (G) (DR)
- Judith A. Praul** (1967), Professor of Counseling Psychology — B.A., Western Illinois University; M.A., Ed.D., Indiana University (G) (DR)
- Steven Pulos** (1990), Associate Professor of Educational Psychology — B.A., M.A., San Francisco State University; Ph.D., York University, Toronto (G) (DR)
- D. Kim Reid** (1991), Professor of Special Education — B.A., Montclair State College; M.Ed., Ph.D., Temple University (G) (DR)
- Barbara G. Rhine** (1991), Associate Professor of Special Education — B.A., Pittsburgh State University; M.A., Ed.D., University of Northern Colorado (G)
- Camille Rhodes** (1983), Instructor in Elementary Education — B.S., Texas Tech University
- Sandra Ruconich** (1983), Assistant Professor of Special Education — B.A., University of Washington, Seattle; M.A., University of Northern Colorado; Ed.D., George Peabody College for Teachers of Vanderbilt University (G)
- Harvey Rude** (1982), Professor of Special Education — B.S., Moorhead State University; M.A., Ed.D., University of Northern Colorado (G) (DR)
- Adele Sanders** (1994), Assistant Professor of Elementary Education and Reading — B.A., M.A., University of Arizona; Ph.D., University of Colorado (G)
- Michelle C. Schicke** (1996), Assistant Professor of School Psychology — B.A., Southeast Missouri State University; M.A., University of Memphis; Ph.D., University of Nebraska-Lincoln (G)
- Diane Schnelker** (1996), Assistant Professor of Applied Statistics and Research Methods — B.A., Central College; M.S., Ph.D., Iowa State University (G)
- Donald T. Searls** (1983), Professor of Mathematics and Applied Statistics — B.S., M.S., South Dakota State University; Ph.D., North Carolina State University (G) (DR)
- Dale Shaw** (1973), Professor of Educational Psychology and Affiliate Professor of Applied Statistics — A.B., Colorado College; M.A., Kansas State University; Ph.D., University of Northern Colorado (G) (DR)
- Sarah F. Shaw** (1967), Professor of Counseling Psychology — B.S., West Virginia University; M.A., Marshall University; Ed.D., Indiana University (G) (DR)
- Fredrick L. Silverman** (1984), Professor of Elementary Education and Reading — B.A., Southern Methodist University; M.A., University of Chicago; Ed.D., University of Houston (G) (DR)
- Yvonne Siu-Runyan** (1989), Associate Professor of Elementary Education and Reading — B.Ed., University of Hawaii; M.A., Michigan State University; Ph.D., University of Toledo (G) (DR)
- Basilisa (Lia) Softas-Nall** (1992), Assistant Professor of Counseling Psychology — B.A., University of Ioannina, Greece; M.A., Ph.D., Ball State University (G) (DR)
- Susan E. Spooner** (1983), Professor of College Student Personnel Administration — B.S., Purdue University; M.S., University of Wisconsin, Madison; Ph.D., Purdue University (G) (DR)
- Judith Stockhouse** (1990), Assistant Professor of Elementary and Reading — B.S., M.A., University of Northern Colorado
- Ann M. Thomas** (1984), Associate Professor of Mathematics and Applied Statistics — B.A., St. Olaf College; M.A., University of Arizona; Ph.D., University of Wyoming (G)
- Elaine C. Vilscek** (1969), Professor of Elementary Education and Reading — B.S., California State University; M.A., Pennsylvania State University; Ph.D., University of Pittsburgh (G) (DR)
- William M. Walsh** (1988), Professor of Counseling Psychology — B.S., M.Ed., Loyola University, Chicago; Ph.D., University of Wyoming (G) (DR)

- Joyce B. Washington** (1970), Associate Professor of College Student Personnel Administration — B.S., Lincoln University of Missouri; M.A., University of Michigan; Ed.D., University of Northern Colorado
- Sandra Welsler** (1983), Assistant Professor of Elementary Education and Reading — B.S., Grand Valley State College; M.A., Michigan State University
- I. David Welch** (1970), Professor of Counseling Psychology — B.A., M.A., University of Northern Colorado; Ed.D., University of Florida; Diplomat, Counseling Psychology, American Board of Professional Psychology (G) (DR)
- Barbara L. Whinery** (1989), Assistant Professor of Elementary Education and Reading — B.S., Colorado State University; M.A., Ph.D., University of Wyoming (G)
- Kathryn S. Whitaker** (1987), Associate Professor of Educational Leadership and Policy Studies — B.S., University of Tennessee; M.S., George Peabody College; Ph.D., Vanderbilt University (G) (DR)
- Phillip M. Wislon** (1982), Professor of Elementary Education and Reading — B.S., M.A., Ph.D., Ohio State University (G) (DR)
- ### College of Health and Human Sciences
- R. Steven Ackley** (1992), Professor of Communication Disorders — B.A., Cornell College; M.Ed., Western Maryland College; Ph.D., University of Colorado (G) (DR)
- Sandra C. Baird** (1973), Professor of Nursing — B.S., M.S., University of Maryland; Ed.D., University of Northern Colorado (G) (DR)
- Elizabeth R. Bate** (1992), Associate Professor of Kinesiology and Physical Education — B.A., University of South Florida; M.Ed., University of Central Florida; Ph.D., Florida State University (G)
- John M. Baumgartner** (1993), Associate Professor of Communication Disorders — B.S., M.S., University of Wisconsin, Stevens Point; Ph.D., Southern Illinois University (G) (DR)
- Nancy A.J. Berg** (1996), Lecturer in Nursing — B.S.N., University of Northern Colorado; M.S.N., University of Colorado
- James A. Bitter** (1970), Professor of Human Rehabilitative Services — B.A., Marquette University; M.S., University of Wisconsin; Ed.D., University of Northern Colorado (G)
- Kathryn A. Blair** (1994), Associate Professor of Nursing — B.S.N., Kent State University; M.S.N., University of Colorado; Ph.D., University of Missouri (G)
- Donna J. Bottenberg** (1976), Professor of Communication Disorders — B.A., M.A., University of Northern Colorado; Ph.D., University of Colorado (G) (DR)
- Kathryn E. Bright** (1991), Associate Professor of Communication Disorders — B.A., Michigan State University; M.S., Florida State University; Ph.D., University of Arizona (G) (DR)
- Robert J. Brustad** (1992), Associate Professor of Kinesiology and Physical Education — B.A., University of California, San Diego; M.A., Ph.D., University of Oregon (G) (DR)
- Cynthia Carlisle** (1972), Professor of Physical Education — B.A., University of Northern Iowa; M.E., Southwestern State College; Ed.D., University of Colorado (G) (DR)
- Linda K. Cleeland** (1976), Associate Professor of Communication Disorders — B.S., Colorado State University; M.A., University of Northern Colorado (G)
- Lory Clukey** (1989), Assistant Professor of Nursing — B.S.N., University of Northern Colorado; M.N., University of Washington
- Carolyn A. Cody** (1967), Professor of Physical Education — B.S., North Texas State University; M.A., University of Northern Colorado; Ph.D., Texas Women's University (G) (DR)
- Bryan E.M. Cooke** (1968), Professor of Community Health — B.A., Aligarh Muslim University; M.P.H., University of Texas; M.S., Ph.D., University of Illinois (G)
- Shannon M. Courtney** (1991), Assistant Professor of Kinesiology and Physical Education — B.A., M.A., University of Northern Colorado
- William Ebomoyi** (1996), Associate Professor of Community Health — B.A., M.S., Western Illinois University; Ph.D., University of Illinois
- Jamie M. Erskine** (1995), Assistant Professor of Food, Nutrition and Dietetics — B.A., San Diego State University; M.S., Oregon State University; Ph.D., Colorado State University (G)
- Kathleen R. Fahey** (1993), Assistant Professor of Communication Disorders — B.S., Bowling Green State University; M.A., Kent State University; Ph.D., Michigan State University (G)
- Juan Miguel Fernandez-Balboa** (1989), Associate Professor of Physical Education — M.S., University of Barcelona, Spain; Ed.D., University of Massachusetts (G) (DR)
- Juliet H. Fried** (1985), Professor of Human Rehabilitative Services — B.A., New England College; M.S., University of Wisconsin, Stout; Ed.D., University of Northern Colorado (G) (DR)
- Sherrie L. Frye** (1987), Associate Professor of Food, Nutrition and Dietetics — B.S., University of Houston; M.S., Ph.D., Colorado State University
- Dennis A. Gay** (1970), Professor of Human Rehabilitative Services — B.S., Oregon State University; M.S., Ph.D., University of Wisconsin, Madison (G) (DR)
- Dianna P. Gray** (1995), Associate Professor of Kinesiology and Physical Education — B.S., James Madison University; M.S., Ph.D., Ohio State University (G) (DR)
- Ellen Meyer Gregg** (1987), Associate Professor of Communication Disorders — B.S., M.A., Northwestern University; Ph.D., University of Colorado (G)
- Francis A. Griffith** (1984), Professor of Communication Disorders/Coordinator of Assessment — B.S., University of Maryland; M.S., Ph.D., Pennsylvania State University (G)
- Scott A. Hall** (1988), Assistant Professor of Physical Education — B.S., St. Lawrence University; M.A., Idaho State University; Ed.D., University of Northern Colorado
- Julie A. Hanks** (1993), Instructor in Communication Disorders — B.A., University of California, Santa Barbara; M.A., University of Northern Colorado
- Larry R. Harrison** (1972), Assistant Professor of Community Health — B.S., Colorado State University; M.S., University of Texas
- Marilyn Heckendorn** (1996), Lecturer in Nursing — B.S.N., University of Northern Colorado; M.S., University of Colorado
- Gary D. Helse** (1995), Associate Professor of Kinesiology and Physical Education — B.S., Pennsylvania State University; M.S., Arizona State University; Ph.D., Pennsylvania State University (G) (DR)
- Nancy L. Hinrichs** (1988), Instructor of Physical Education — B.S., M.S., Western Illinois University
- Christy A. Howard** (1973), Assistant Professor of Physical Education — B.A., Western Washington State College; M.A., University of Oregon
- Faye I. Hummel** (1987), Assistant Professor of Nursing — B.S.N., Metropolitan State College; M.S., University of Colorado; Ph.D., Colorado State University (G)
- Dennis R. Ingrisano** (1984), Professor of Communication Disorders — B.S., DePaul University; M.Ed., Pennsylvania State University; Ph.D., Indiana University (G) (DR)
- Catherine G. Ratzin Jackson** (1985), Professor of Kinesiology — B.A., M.A., Montclair State College; Ph.D., University of Colorado (G) (DR)
- Larry A. James** (1970), Assistant Professor of Recreation — B.S., M.A., University of Northern Colorado
- Priscilla J. Kimboko** (1984), Professor of Gerontology — B.A., M.A., Ph.D., Portland State University (G) (DR)
- Virginia Kinnick** (1978), Professor of Nursing — B.S., University of Kansas; M.S.N., Yale University; Ed.D., University of Colorado (G) (DR)
- Jane E. Koeckeritz** (1985), Associate Professor of Nursing — B.S.N., University of Wyoming; M.S.N., University of Colorado; Ph.D., Colorado State University (G)
- Debra Leners** (1990), Associate Professor of Nursing — B.S.N., M.A.N., University of Iowa; Ph.D., University of Colorado (G)
- Judith A. Malkiewicz** (1975), Associate Professor of Nursing — B.S., University of Northern Colorado; M.S., Ph.D., University of Colorado (G)
- Janice Hoot Martin** (1985), Associate Professor of Nursing — B.S.N., Louisiana State University; M.S., University of Colorado; Ph.D., University of Denver (G)
- Raymond D. Martinez** (1993), Instructor of Kinesiology and Physical Education — B.S., M.S., University of Wisconsin, La Crosse
- Raymond E. Nelson** (1984), Associate Professor of Human Rehabilitative Services — B.A., Central Washington University; M.S., Ph.D., University of Oregon (G) (DR)
- Joseph N. Ososkie** (1991), Associate Professor of Human Rehabilitative Services — B.S., Syracuse University; M.A., Seton Hall University; Ph.D., University of Wisconsin, Madison (G) (DR)
- William G. Parkos** (1970), Professor of Community Health — B.S., Mankato State College; M.S., Ph.D., University of Minnesota (G)
- Diane Peters** (1984), Associate Professor of Nursing — B.S.N., M.N., University of Florida; Ph.D., University of Denver (G)
- D. Allen Phillips** (1968), Professor of Physical Education — B.S., M.Ed., University of Idaho; Ed.D., University of Oregon (G) (DR)
- Judith Richter** (1978), Professor of Nursing — B.S., Wagner College; M.S.N., University of Alabama; Ph.D., University of Colorado (G) (DR)
- Carol Roehrs** (1989), Assistant Professor of Nursing — B.S., M.S., University of Colorado
- Bobby H. Rollins** (1993), Instructor of Physical Education — B.S., Colorado State University; M.A., Arizona State University
- Mary Jo Sariscsany** (1996), Associate Professor of Kinesiology and Physical Education — B.S., Central Michigan University; M.Ed., Ed.D., Arizona State University (G)
- Vincent A. Scalia** (1977), Professor of Human Rehabilitative Services — B.S., St. Peter's College; M.S., University of Arizona; Ed.D., University of Northern Colorado (G) (DR)
- Carole M. Schneider** (1992), Associate Professor of Kinesiology and Physical Education — B.S., Briar Cliff College; M.S., Iowa State University; Ph.D., University of Minnesota (G) (DR)
- Jim Stehl** (1988), Professor of Physical Education — B.S., Rutgers University; M.S., Ph.D., University of California, Los Angeles (G) (DR)
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- Norbert R. Van Dinter** (1967), Professor of Recreation — B.S., Sul Ross State College; M.S., Florida State University; Ed.D., University of Northern Colorado (G)

- Robbyn R. Wacker** (1990), Associate Professor of Gerontology — B.S., B.A., M.S., University of Northern Colorado; Ph.D., Iowa State University (G) (DR)
- Nancy E. White** (1988), Professor of Nursing — B.S.N., University of Virginia; M.S.N., University of Colorado, Denver; Ph.D., University of Arizona (G)
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- Edwin D. Baker** (1965), Professor of Music — B.M., M.M., Indiana University (G) (DR)
- H. Gray Barrier** (1983), Associate Professor of Music — B.M.E., East Carolina University; M.M., Northwestern University (G)
- Jonathan Bellman** (1993), Assistant Professor of Music — B.A., University of California, Santa Barbara; M.M., University of Illinois at Urbana-Champaign; D.M.A., Stanford University (G) (DR)
- Diane Bolden Taylor** (1993), Assistant Professor of Music — B.M., Milliken University; M.M., Indiana University
- Betty E. Carlisle** (1969), Professor of Visual Arts — B.S., Eastern Montana College; M.A., University of Wyoming; Ed.D., University of Northern Colorado (G)
- R. Evan Copley** (1968), Professor of Music — B.M., University of Denver; M.M., Ph.D., Michigan State University (G) (DR)
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- Michael A. Coronel** (1975), Professor of Visual Arts — B.A., California State University, Northridge; M.A., University of California, Santa Barbara
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- Robert Ehle** (1971), Professor of Music — B.M., Eastman School of Music; M.M., Ph.D., North Texas State University (G) (DR)
- James A. Fittz** (1985), Professor of Music — B.A., Wheaton College; M.M., D.M.A., University of Arizona (G) (DR)
- Richard C. Fuchs** (1983), Professor of Music — B.M., M.M., University of Illinois (G)
- Raymond Vance Fulkerson** (1990), Associate Professor of Theatre Arts — B.S., Southern Illinois University, Carbondale; M.A., University of Missouri
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- John Welch** Affiliate Professor of Human Rehabilitative Services — B.A., University of Arizona; M.D., Cornell Medical College
- Michael Woods** Affiliate Professor of College Health — B.S., B.A., M.D., University of New Mexico
- John Wooster** Affiliate Associate Professor of Human Rehabilitative Services — B.S., Oregon State University; M.S., Eastern Montana College; Ed.D., University of Northern Colorado
- Gregory A. Worrell** Affiliate Assistant Professor of Kinesiology — B.S., Oral Roberts University; M.S., Oklahoma State University; Ed.D., University of Northern Colorado
- Alice Wright** Affiliate Assistant Professor of Nursing — B.A., University of Montana; M.A., University of Colorado
- Mark D. Young** Affiliate Professor of College Health — B.S., Abilene Christian University; M.D., University of Texas
- Walter Young** Affiliate Assistant Professor of Community Health — B.S., University of Akron; M.A., University of Northern Colorado

Emeritus Faculty

- Donald K. Adams** Professor Emeritus of Educational Field Experiences — B.S., M.A., Ed.D. Appointed 1971; Emeritus since 1993
- William T. Agan** Associate Professor Emeritus of English — B.A., M.A. Appointed 1964; Emeritus since 1993
- Hugo A. Anderson** Professor Emeritus of Business — B.A., M.S. Appointed 1968; Emeritus since 1979
- James F. Anderson** Professor Emeritus of Economics — Ph.B., M.A., Ph.D. Appointed 1970; Emeritus since 1987
- Rachel F. Anderson** Professor Emeritus of Business — B.A., M.A. Appointed 1967; Emeritus since 1975
- Carol R. R. Andreas** Professor Emeritus of Sociology — B.A., M.A., Ph.D. Appointed 1988; Emeritus since 1995

- Patricia A. Applegate** Associate Professor Emeritus of English — B.A., M.A. Appointed 1964; Emeritus since 1987
- Elmer V. Bachenberg** Associate Professor Emeritus of Library Science — B.A., M.S. Appointed 1964; Emeritus since 1993
- Richard F. Ball** Professor Emeritus of Art — B.S., M.A. Appointed 1947; Emeritus since 1977
- Alvin E. Barnhart** Professor Emeritus of Educational Administration — B.S., M.Ed., Ed.D. Appointed 1963; Emeritus since 1988
- Richard Bear** Professor Emeritus of Counseling Psychology — B.S., M.A., Ed.D. Appointed 1967; Emeritus since 1988
- Nancy Quinn Beardslee** Associate Professor Emeritus of Nursing — B.S., M.S., Ed.D.; Emeritus since 1996
- John A. Beel** Professor Emeritus of Chemistry — B.S., Ph.D. Appointed 1949; Emeritus since 1984
- Mary A. Behling** Professor Emeritus of Physical Education — B.S., M.A., Ph.D. Appointed 1959; Emeritus since 1988
- Thomas R. Benich** Professor Emeritus of Physical Education — B.A., M.A. Appointed 1964; Emeritus since 1987
- Lois W. Bennett** Professor Emeritus of Vocational Teacher Education — B.A., M.A., Ed.D. Appointed 1969; Emeritus since 1983
- Warren Best** Associate Professor Emeritus of College Student Personnel Administration — B.S., M.A. Appointed 1957; Emeritus since 1985
- Agnes Biegel** Associate Professor Emeritus of Nursing — B.S.N., M.S.N. Appointed 1969; Emeritus since 1990
- Margaret T. Blake** Professor Emeritus of Counseling Psychology — B.S., M.S., Ph.D. Appointed 1968; Emeritus since 1989
- Robert Blasf** Professor Emeritus of Physical Education — B.S., M.A. Appointed 1955; Emeritus since 1988
- Charles T. Blubaugh** Associate Professor Emeritus of Art — B.F.A., M.A. Appointed 1964; Emeritus since 1982
- George A. Boeck** Professor Emeritus of History — B.A., M.A., Ph.D. Appointed 1959; Emeritus since 1986
- Irene Engle Bogan** Associate Professor Emeritus of Library Science — B.A., B.S.L.S. Appointed 1946; Emeritus since 1964
- Richard R. Bond** President Emeritus of the University — B.S., M.S., Ph.D. Appointed 1971; Emeritus since 1981. Professor Emeritus of Zoology; Emeritus since 1988
- Adah Bossart** Associate Professor Emeritus of Nursing — B.S., M.S. Appointed 1968; Emeritus since 1984
- Jack A. Bowen** Professor Emeritus of Human Services — B.S., M.S., Ph.D. Appointed 1968; Emeritus since 1984
- James K. Bowen** Professor Emeritus of Colleges Student Personnel Administration — B.S., M.S., Ed.D. Appointed 1966; Emeritus since 1994
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- D. Harold Bowman** Professor Emeritus of Education — B.S., M.Ed., Ed.D. Appointed 1959; Emeritus since 1983
- Wanda Brewer** Professor Emeritus of English — B.F.A., M.A., Ed.D. Appointed 1962; Emeritus since 1989
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- George H. Brooks** Assistant Professor Emeritus of Social Studies — B.A., M.Ed., Ed.D. Appointed 1961; Emeritus since 1982
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- Shirley M. Carriar** Professor Emeritus of English — B.Ed., M.A., Ed.D. Appointed 1958; Emeritus since 1982
- Timothy Cavanagh** Professor Emeritus of Mathematics and Applied Statistics — B.A., M.A., Ph.D.. Appointed 1965; Emeritus since 1995
- Amos Lincoln Claybaugh** Professor Emeritus of Elementary Education — B.A., M.A., Ed.D. Appointed 1958; Emeritus since 1978
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- Virginia Costello** Professor Emeritus of Library Science — B.A., M.A. Appointed 1942; Emeritus since 1978
- Jane C. Cox** Associate Professor Emeritus of Education — B.S., M.A., Ed.D. Appointed 1973; Emeritus since 1983
- Richard J. Crawford** Professor Emeritus of Speech Communication — B.A., M.A., Ph.D. Appointed 1962; Emeritus since 1991
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- William L. Duff Jr.** Dean Emeritus of College of Business Administration — B.A., M.S.Sc., Ph.D.. Appointed 1969; Dean Emeritus since 1995
- Dale Dyklins** Professor Emeritus of Music — B.M., M.M. Appointed 1950; Emeritus since 1983
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- Rupert M. Goodbrod** Professor Emeritus of Music — B.F.A., M.S. in Ed. Appointed 1945; Emeritus since 1971
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- Jean A. Hedberg** Assistant Professor Emeritus of Physical Education — B.S., M.A. Appointed 1968; Emeritus since 1992
- Ramon P. Heimerl** Professor Emeritus of Business — B.S., B.Ed., M.A., Ph.D. Appointed 1952; Emeritus since 1981
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- Tyrus Hillway** Professor Emeritus of Higher Education — B.A., M.A., Ph.D. Appointed 1951; Emeritus since 1973
- Joseph E. Himmel** Professor Emeritus of Music — B.A., M.M. Appointed 1961; Emeritus since 1984
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- Donald L. Holley** Professor Emeritus of Communication — B.Ed., M.A., Ed.D. Appointed 1964; Emeritus since 1982
- Samuel R. Houston** Professor and Chair Emeritus of Mathematics and Applied Statistics — B.A., M.A., M.S., Ph.D. Appointed 1968; Emeritus since 1992
- Edna Mary Hoydar** Professor Emeritus of Public School Music — B.A., M.M. Appointed 1937; Emeritus since 1962
- Bernice E. Hunn** Professor Emeritus of Elementary Education — B.S., M.A., Ed.D. Appointed 1957; Emeritus since 1975
- Joan T. Hurlock** Associate Professor Emeritus of Nursing — B.S., M.S. Appointed 1970; Emeritus since 1984
- Rita J. Hutcherson** Professor Emeritus of Music — B.A., M.A., Ph.D. Appointed 1946; Emeritus since 1973
- David L. Jelden** Professor Emeritus of Educational Technology — B.A., M.A., Ed.D. Appointed 1962; Emeritus since 1988
- Dana Johnson** Professor Emeritus of Visual Arts — B.F.A., Ed.D. Appointed 1966; Emeritus since 1986
- F. Morris Johnson** Professor Emeritus of Industrial Arts — B.A., M.A., Ed.D. Appointed 1953; Emeritus since 1976
- J. M. Johnson** Professor Emeritus of Educational Field Experiences — B.A., M.A., Ed.D. Appointed 1965; Emeritus since 1984
- Robert L. Johnson** Professor Emeritus of Mathematics — B.A., M.S., Ph.D. Appointed 1960; Emeritus since 1984
- H. Audrie Johnston** Professor Emeritus of Mathematics — B.A., M.S. Appointed 1965; Emeritus since 1981
- Willard Jones** Professor Emeritus of Special Education — B.A., M.S., Ed.D. Appointed 1969; Emeritus since 1995
- Zahi S. Kamal** Professor Emeritus of Sociology — B.S., M.S., Ph.D. Appointed 1970; Emeritus since 1995
- Kevin C. Kearns** Professor Emeritus of Geography — B.S., M.A., Ph.D.; Appointed 1966; Emeritus since 1996
- Edward J. Kelly** Professor Emeritus of Elementary Education — B.A., M.A., Ph.D. Appointed 1953; Emeritus since 1980
- Calvin E. Kennedy** Professor Emeritus of Accounting — B.S., M.S., Ph.D. Appointed 1965; Emeritus since 1984
- LeRoy Kerns** Professor Emeritus of Education — B.A., M.A., Ed.D. Appointed 1949; Emeritus since 1974
- David W. Kettel** Associate Professor Emeritus of Anthropology — B.A., M.A., Ph.D. Appointed 1973; Emeritus since 1983
- Joyce C. Kilewer** Assistant Professor Emeritus of Food, Nutrition and Dietetics — B.A., M.A., Ed.D. Appointed 1970; Emeritus since 1984
- Ray B. Knapp** Associate Professor Emeritus of Political Science — B.A., Ph.D. Appointed 1966; Emeritus since 1984
- William G. Koch** Professor Emeritus of Chemistry — B.S., M.A., Ph.D. Appointed 1955; Emeritus since 1984
- Betty J. Kolstoe** Professor Emeritus of Special Education — B.A., M.A., Ed.D. Appointed 1969; Emeritus since 1984
- Oliver P. Kolstoe** Professor Emeritus of Special Education — B.A., M.S., Ph.D. Appointed 1965; Emeritus since 1984
- Eugene Koplitz** Professor Emeritus of Educational Psychology — B.S., M.A., Ph.D. Appointed 1958; Emeritus since 1988
- Edward Krafft** Assistant Professor Emeritus of Elementary Education in the Laboratory School — B.S., M.A. Appointed 1967; Emeritus since 1984
- Roy T. Krosky** Professor Emeritus of Education — B.A., M.A., Ph.D. Appointed 1973; Emeritus since 1983
- Jack LaBonde** Assistant Professor Emeritus of Health and Safety — B.A., M.A. Appointed 1959; Emeritus since 1984
- Frank P. Lakin** Professor Emeritus of Higher Education — B.A., M.A., Ed.D. Appointed 1957; Emeritus since 1985
- Robert W. Larson** Professor Emeritus of History — B.A., M.A., Ph.D. Appointed 1960; Emeritus since 1990
- George Leach** Professor Emeritus of University Studies — B.A., M.A., M.S., Ed.D. Appointed 1965; Emeritus since 1985
- Rose Eileen Leacock** Professor Emeritus of Fine Arts — B.A., M.A. Appointed 1945; Emeritus since 1968
- Paul L. Lehrer** Professor Emeritus of Geography — B.S., M.A., Ph.D. Appointed 1966; Emeritus since 1993
- Lawrence A. Levenson** Associate Professor Emeritus of Marketing — B.A., M.B.A. Appointed 1973; Emeritus since 1989
- A. Juanita Lewis** Professor Emeritus of Elementary Education — B.S., M.A., Ph.D. Appointed 1959; Emeritus since 1982
- Virgil Y. Lindahl** Professor Emeritus of Physical Education — B.A., M.A. Appointed 1953; Emeritus since 1982
- Sanford A. Linscome** Professor Emeritus of Music — B.M.E., M.M., D.M.E. Appointed 1965; Emeritus since 1988
- Robert Longwell** Professor Emeritus of Education — B.A., M.A., Ph.D. Appointed 1962; Emeritus since 1986
- David L. Lonsdale** Professor Emeritus of History — B.A., M.A., Ph.D. Appointed 1968; Emeritus since 1986
- Betty L. Lowry** Professor Emeritus of Elementary Education — B.A., M.A., Ph.D. Appointed 1956; Emeritus since 1982
- Herman D. Lujan** Distinguished Professor and President Emeritus — B.A., M.A., Ph.D. Appointed 1991; Emeritus since 1996
- Arno H. Luker** Professor Emeritus of Psychology, Counseling and Guidance — J.D., M.A., Ed.D. Appointed 1949; Emeritus since 1977
- Donald M. Luketich** Professor Emeritus of Educational Administration — B.S.E., M.S., Ed.D. Appointed 1964; Emeritus since 1987
- Dale J. Lundeen** Professor Emeritus of Communication Disorders — B.A., M.A., Ph.D. Appointed 1967; Emeritus since 1987
- Carol L. Lutey** Professor Emeritus of Psychology — B.S., M.A., Ph.D. Appointed 1959; Emeritus since 1981
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- Rozema E. McKain** Assistant Professor Emeritus of Business in the Laboratory School — B.A., M.A. Appointed 1970; Emeritus since 1984
- Charles A. Meyer** Associate Professor Emeritus of English — B.A., M.A.; Appointed 1966; Emeritus since 1996
- Florence M. Meyer** Associate Professor Emeritus of English — B.A., M.A. Appointed 1939; Emeritus since 1960
- Howard M. Mickens** Professor Emeritus of Music — B.S., M.M. Appointed 1963; Emeritus since 1982
- Nelda M. Mickens** Assistant Professor Emeritus of Music in the Laboratory School — B.M.E., M.A. Appointed 1971; Emeritus since 1984
- Barbara Mickey** Professor Emeritus of Anthropology — B.A., M.A., Ph.D. Appointed 1965; Emeritus since 1984
- John R. Mickey** Associate Professor Emeritus of Anthropology — B.S. Appointed 1956; Emeritus since 1983
- James E. Miller** Professor Emeritus of Music — B.M., M.A., M.F.A., Ph.D. Appointed 1954; Emeritus since 1985
- Wilbur G. Millsagle** Professor Emeritus of Special Education — B.S., M.A., Ed.D. Appointed 1967; Emeritus since 1989
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- Lola J. Montgomery** Professor Emeritus of Psychology — B.A., M.A., Ed.D. Appointed 1963; Emeritus since 1982
- Robert A. Montgomery** Professor Emeritus of Physical Education — B.A., M.S., Ed.D. Appointed 1960; Emeritus since 1987
- G. Joseph Moody** Professor Emeritus of Visual Arts — B.F.A., M.F.A. Appointed 1968; Emeritus since 1984
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- Howard D. Ninemires** Professor Emeritus of Education — B.A., M.A. Appointed 1952; Emeritus since 1968

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- Jeanne E. Ormrod** Professor Emeritus of Educational Psychology — B.A., M.S., Ph.D. Appointed 1976; Emeritus since 1997
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- William D. Popejoy** Professor Emeritus of Mathematics and Applied Statistics — B.S., M.A., Ed.D. Appointed 1959; Emeritus since 1988
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- Mary R. Rhoads** Professor Emeritus of Music — B.S., M.M., Ph.D. Appointed 1971; Emeritus since 1984
- Royal Rich** Professor Emeritus of Biological Sciences — B.A., M.S., Ph.D. Appointed 1965; Emeritus since 1995
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- Edmund Richards** Professor Emeritus of Zoology — B.S., M.S., Ph.D., M.D. Appointed 1970; Emeritus since 1995
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- Robert O. Schulze** Professor Emeritus of Sociology — B.A., M.A., Ph.D. Appointed 1972; Emeritus since 1987
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